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# Association between Job Satisfaction and Pay: The Case of the Wage Payment System of Dental Clinics in Korea

Eui Jeong Kim  
*University of South Carolina*

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ASSOCIATION BETWEEN JOB SATISFACTION AND PAY: THE CASE OF THE  
WAGE PAYMENT SYSTEM OF DENTAL CLINICS IN KOREA

by

Eui Jeong Kim

Bachelor of Dental Science  
Chonnam National University, 1995

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Accepted by:

M. Mahmud Khan, Major Professor

Whiejong M. Han, Committee Member

Anwar Merchant, Committee Member

Hae Ho Lee, Committee Member

Cheryl L. Addy, Vice Provost and Dean of the Graduate School

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## ABSTRACT

The purpose of this study is to investigate empirical type of the wage structures and the sub-items of wage applied at dental clinics and to analyze the determinants of pay satisfaction of dental employees. The questionnaire used in this study consists of personal characteristics, characteristics of workplace, administration of pay, Pay Satisfaction Questionnaire (PSQ), Job Descriptive Index (JDI). PSQ and JDI were translated, and backward translation into Korean was implemented. A pilot test was conducted with 25 dental employees to complete the questionnaire. Survey was conducted from February to July in 2015, receiving 302 valid responses. ANOVA or t-test was conducted with categorized characteristics, by calculating pay satisfaction and job satisfaction scores. Principal factor analysis which is an exploratory factor analysis was conducted to investigate the consistency of pay satisfaction. The sub-factors of job satisfaction based on previous studies were divided into 'work colleagues', 'jobs', 'wages', 'promotion opportunities', and 'supervision'. Multiple regression analysis was conducted to investigate how much effect the variables have on pay satisfaction and job satisfaction. At this time, the model was analyzed by adding stepwise variables in three stages. The result of principal factor analysis showed that pay satisfaction consists of 3 factors which are 'paying system', 'pay level', 'benefits'. 'Pay raise' which was one of 4 factors of original PSQ was not the factor of pay satisfaction of dental employees. The result of multiple regression analysis showed tendencies pay satisfaction increases when age and monthly income increases and whole career and the number of unit chairs decreases.

Increasing the autonomy of employees and simplification of paying system would improve pay satisfaction efficiently. The significant variables related to job satisfaction were the whole career, the number of unit chairs, the welfare level, and the amount of pay level. In this study, wage system applied in dental clinics was examined, and it was confirmed that wage satisfaction and job satisfaction differ according to wage system. These results can be used as basic data for wage satisfaction and job satisfaction in order to secure competitiveness of dental medical institutions.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Background

Employee's role is important in all positions in the service industry. Especially, reinforcing competitiveness of human resources of health care industry that is labor intensive and technology intensive is quintessential (Kim, Park & Lee, 1997). Unfortunately, management activities to improve health system functioning are not as effective and efficient as in other sectors of the economy. Such poor performance is attributed to very high weight assigned to medical or clinical process of service providers, namely the doctors and much lower weight assigned to management, management approaches and implementation of effective administrative instruments. Underperformance is also attributable to the characteristic of organization composed of various occupation types riddled with complex motivation which makes it harder to control and manage health care organizations (Kim et al., 1997; Chang, Lee, & Kim, 2006). Health care industry is experiencing rapid changes on a continuous basis due to a number of underlying factors changing constantly, often at quite rapid rates. For example, one of the most important factors affecting the health care industry is the income of the population and income in South Korea has seen significant increase over the past few decades. In addition to income, other factors affecting the health sector are expansion of medical insurance, higher expectation from the patient, and establishment of new grand-

scale hospitals. With competition among hospitals getting fiercer, hospital's efficient management and systematic organization management are gaining more attention in order to secure competitiveness in the market. For the organization to secure competitiveness and to maintain sustainable development, productivity should be enhanced by providing enough motivation to laborers. However, hospital alone cannot increase provision of medical services so effective management of compensation system is important (Kim, 2005). For efficient management and systemic organizational management in labor-intensive medical industry, discussion about management of human resources must take a central role. Hospital organizations are carefully making changes to the wage system just like other non-health sector corporations to improve human resource management of the organizations.

Compensation level and system have significant impact on the livelihood and quality of life of labor force in the industry as well as overall social status of the workforce with implications for performance in job settings through the effect of compensation system on motivation of employees. Wage is the most important category as monetary compensation in an organization and one of the most fundamental elements for inducing positive motivation among members of the organization. Therefore, compensation system, especially the monetary compensation part of total wage bill, has important behavioral influence on organization members and has become the standard for evaluating organization's management practices. This is because along with the proposition that wage affects job performance from internal and external perspectives, it is also predicated on the belief that high job satisfaction leads to lower turnover ratio,

lower absence ratio, and thus higher productivity (Park & Yoon, 1992; Chang et al., 2006).

Dental clinic's representative human resources are the dentists and the dental hygienists. Most of dental clinic's organization is composed of employer dentist and employee dentists and dental hygienists. Just like other medical institutions, as competition among dental clinics increases, securing highly competitive quality staff member and providing an environment for staff members to feel satisfied about their work and find a sense of belonging in their workplace has become increasingly more important (Sim & Suh, 2008). Especially, with the advent of medical travel or medical tourism business, there is a growing interest in ways to enhance satisfaction of organization members, who are internal customers of dental clinics, in order to provide world class treatment services of high quality in preparation for the opening of dental health medical market in a global market. When the internal customer's satisfaction increases, medical services of enhanced quality can be offered or provided and patients' satisfaction will improve (Jeon, 2002). A number of research studies have been carried out to understand the links between dental hygienists' wage and job satisfaction, and the reasons for job turnover rate in this industry. However, most of research studies that have been carried out deal with the relationship between satisfaction of wage level and job satisfaction or intention to quit a job or transfer from one job to another. Literature on or understanding of various wage systems applied in dental clinic is insufficient (Jeong, Choi, & Choi, 2014; Kang & Lee, 1998; Kim, Choi, & Sung, 2012; Jeon, 2002). Taking this into consideration, this study examines various wage systems used in dental clinics

and intends to provide exploratory analysis and literature for efficient management strategy of dental clinics by exploring the relationship between wage and job satisfaction.

## **1.2 Research Objectives**

In the face of growing consumer expectation of high quality services in dental clinics, diversified needs of customers, and even increasing competition among dental clinics, the clinics are required to raise management efficiency through innovation and strategies, externally, and to foster a sound organizational culture and creative climate internally. Such efforts should include a renewed recognition and interest in the importance of human resources, which should be a key factor of any organization. This is especially the case in medical centers where human resources play a bigger role than any other organizations; medical centers are needed to set a supportive and creative climate (Tesluk, Farr, & Kelin, 1997), which is suitable for their members. Thus, it is necessary to understand and reflect the job characteristics of the members from the perspective of HR control (in the medical organization) for better management. Such an approach will contribute to fostering a sound organizational climate and enhancing mental health of the members. In addition to this, recruitment or training budget (or expenses) will be reduced (saved) by securing competitive talent and by preventing brain drain. Therefore, this study intends to identify the wage systems being used and pay and job satisfaction status of employees of dental clinics in South Korea. Specific objectives of the research include:

- 1) To identify the wage structures being applied to and practices of sub items of dental clinics,

2) To develop a measurement tool of job satisfaction that can be applied to understand pay related satisfaction and job satisfaction of employees of dental clinics. The analysis will use already-developed pay satisfaction/job satisfaction measurement instruments, and to measure pay satisfaction/job satisfaction of dental clinic members, and

3) To provide a basis for introducing proper pay system and attaining competitiveness by identifying the impact of pay on satisfaction with the pay and on job satisfaction in general for different modes of paying the employees. This will help to improve quality of dental care services provided.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Wage system

Corporations are making constant efforts to secure competitiveness through productivity enhancement and by the development of technology under rapidly changing management environment. Enhanced productivity and development of technology is not simply achieved by more investment but rather significant improvements can be achieved by ensuring high degree of motivation of workers and enhancing capacity of staff members, who can effectively make investment and development possible (Kim, 2005; Moon, Yoon, Lee, & Park, 2006; Choi, 2001). Furthermore, modern societies not only focus on enhancing external customers' satisfaction but also has considerable interest in elevating external customers' satisfaction through satisfaction of internal customers. Satisfaction of internal customers will help in boosting corporation's competitiveness. There are many factors that induce motivation and enhance satisfaction of internal customers or staff but under Korean working environment, promotion and wage are the most important variables. (Kim, 2005; Moon et al., 2006; Park, 1996; Lee, 1997). Among these two factors, wage means more than direct compensation for labor. It is also an effective factor for motivating laborers to work harder as wage is a means to satisfy human needs, represents social status inside and outside of organization, and is a tool for fulfilling needs for existence and self-realization. (Folger & Cropanzano, 1998). In terms of wage management, management of wage system and wage level is paramount for the

organizations (or corporations). Management of wage level refers to entire labor cost related to determining the organization's wage level. Management of wage system refers to individual labor cost that deals with fair distribution of the organization's entire wage according to a specific standard in certain categories for each individual laborer.

Reaching adequate wage level through organizational growth is important but some of the matters that also need to be taken seriously include setting up reasonable wage system for fair distribution of wage. (Folger & Cropanzano, 1998; H. Heneman & Schwab, 1985).

Management of wage system can be divided into level of wage and distribution of wage among the workers in an organization. The important aspects are whether the wages offered to workers are adequate to meet their physical and social needs and whether the wage bill is distributed in a fair manner among the workers (Park, 1996). Wage system refers to compensation paid to workers and the method of determining the wage levels. More concretely, it refers to how to set basic wage categories and how each wage category is determined according to different methods of calculation. (Lee, 1997; Huh, 2001). Wage system can be divided into wage determining system and wage composition system. The former refers to standard for determining wage and wage composition system refers to the system of basic wage, each and every kind of means, bonus that compose wage. Moreover, wage can be divided into standard wage and other payments that is over and above the standard wage. Standard wage means payment for time workers spent at work and paying for the work hours is referred to as the standard wage in this analysis. Wages other than standard wage refers to allowance and bonus paid for



labor but these payments may not be fully tied with the hours of work or productivity (Sung, 1987; Lee, 1997).

With advent of merit system and due to the aging of the society, employment has become a critical issue and Korea's wage system is now shifting from previous seniority-based wage system to merit-based system where merit related factors including laborer's job function, job capacity, and performance are used for determining the compensation and wage (Park, 1996; Choi, 2001). Hospital organizations are also trying to actively respond to changing environment and trying to introduce innovative human resource management strategies (J. Lee, 2015; Yoon-hyeon Lee, 2007; Kim et al., 1997; Chang et al., 2006). Among the many efforts made, practical wage management, or the issue of rationalization and optimization of wage system will be the fundamental task for securing competitiveness of hospital management and enhancing motivation level of hospital staff (Kim et al., 1997; Lee, 1989; Chang et al., 2006). Most of hospital's wage management used to be based on seniority but with surrounding environment changing many hospitals are now adopting wage system based on performance or capability to secure talents that can perform various tasks and retains outstanding technology as a strategy to survive in the competitive market-place (J. Lee, 2015; Chang et al., 2006).

As most of dental clinics are small and medium sized hospitals, one of urgent management issues that need to be resolved include improving earnings and expenses through reduced labor cost but such goal can be achieved more effectively only when quality medical services is provided and medical productivity is increased through more efficient management system and better use of human resources. (J. Kim, Kim, Yum, & Co, 2014; J. Lee, 2015). Wage system exists in many forms depending on categorization

standard but examination or understanding various wage management system currently being used by dental sector needs improvement. Therefore, this section aims to examine characteristics, advantages, and disadvantages of wage system based on seniority and merit (job function, job capacity) among various wage systems and understand wage system appropriate for small and medium sized hospitals or clinics.

### **2.1.1 Components of wage and wage system**

Generally, wage is composed of wage received as “direct” compensation in return for working such as wage, salary, all kinds of allowance, including retirement allowances, and other kind of payment or value or wage received as “indirect” allowance not directly linked with the work or wage payment. These additional costs may include benefit allowance and traveling expenses (Park, 1996; Park & Kim, 2008; Yoo, 2014). In terms of wage system, the wage can be categorized into standard wage and wage other than standard wage. As wage paid for laborer’s normal labor carried out under usual working condition, standard wage is the crux of the wage payment system. That is because standard wage not only takes up a relatively large proportion of total wage-bill but also becomes the “base” wage for the payment of allowances, bonus, or other fringe benefits. Further, wage payment system can be categorized as wage based on seniority, job function, and job capacity. Wage system based on seniority provides wage based on years of experience or training or both, and wage system based on job function pays workers based on job function related factor. Wage system based on job capacity is a type of payment mechanism that mixes the two types of wage system described above. (Figure 2.1). Meanwhile, a form of fringe benefits, wage other than standard wage is payment for

laborer's labor besides normal labor. It is composed of allowance (over time allowance, special allowance) and bonus.

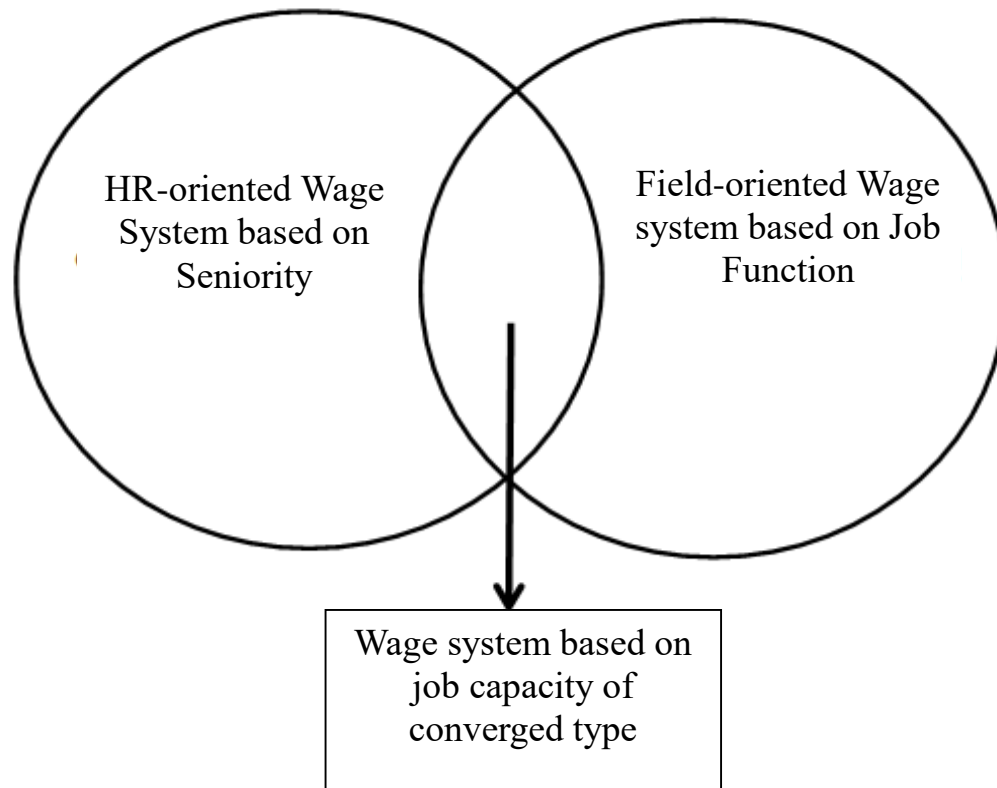


Figure 2.1. Forms of standard wage payment systems

### 2.1.2 Seniority based wage system

The basic structure of seniority based wage system is the method of determining wage level according to age, gender, educational background, and years of service. Under the seniority based wage system, there are wage gaps among individuals according to staff member's years of service and has strong characteristic of wage for livelihood. As

the system is predicated on long-term employment, such wage system is a compensation system that maintains long-term balance between economic incentive called wage and value contributed to the organization by staff members (Shin & Kim, 1997; Lee, 1989). This system is appropriate for corporations with low turnover ratio, low difficulty gap among different job functions, and easy transfer of placement inside the company. This wage system is adopted by companies with very conservative business climate, management consciousness, and business contents. Moreover, under seniority based wage system, wage holds significant implication in that it can raise effect of educational training on staff members, encourage sense of belonging to the corporation, and advance stability of employment and labor continuity. However, such wage system is disadvantageous in that such system has difficulty in securing professional work force, keeping up with labor cost that grows fast due to long years of service. Moreover, such system induces reserved and subordinate working attitude, and can undermine highly talented young work force's morale (Park, 1996).

### **2.1.3 Wage based on job function**

The wage system that decides on the wage level of employees according to their performance in each job function is called the wage system based on job function. This system is predicated on the logic that competition among employees and incentives to improve job performance will enhance work capacity and labor productivity. (Park & Kim, 2008; Chang, 2011). Wage based on job function is defined as compensation system where basic pay is determined based on job function's value regardless of characteristics of people who carry out the task. In this sense this pay system is the fairest

compensation system as it reaches closest to the system under which equivalent labor receives equivalent pay (Yoo, 2014; Chang, 2011). Wage based on job function pays employees based on position or salary class according to degree and types of job content and job capability. Thus, level of wage is determined by importance and difficulty of task or evaluation of relative value of work. To implement this system, evaluation of all tasks within the organization has to be preceded. Pay based on job function has developed while compromising conflict of interest between management sector, labor sector, and the government in western society, especially in the United States. The system finally has taken root through scientific and systematic research and analysis and has contributed to stable growth of national economy and corporations or business entities. Wage based on job junction is advantageous in that it can enhance labor productivity and work capacity through workforce management based on job function. Such system is also beneficial as it can well reflect the labor market and secure flexibility of the labor market. Furthermore, such system makes implementation of merit based personnel management system easier, provides better environment for nurturing specialist, and a system that can help secure fairness in compensation. However, the system also carries a number of disadvantages. It is often difficult to set objective evaluation standard and due to rigid management of personnel, flexible management of personnel according to fast environmental changes becomes difficult. Furthermore, due to ceiling on wage increases, this pay system may demotivate individual laborers, especially the ones with very high productivity (Oh, 2016; Yoo, 2014; Chang, 2011).

Table 2.1. Comparison of wage based on seniority and wage based on job function

	<b>Wage based on seniority</b>	<b>Wage based on job function</b>
<b>Characteristic</b>	<ul style="list-style-type: none"> <li>• System under which wage is determined according to personnel's background or characteristics (educational background, age, years of service, capacity) rather than job content.</li> </ul>	<ul style="list-style-type: none"> <li>• System under which wage is determined according to job function's value rather than personnel's background or characteristics (educational background, age, years of service, capacity).</li> </ul>
<b>Advantage</b>	<ul style="list-style-type: none"> <li>• Encourage laborer's loyalty</li> <li>• Encourage long years of service</li> <li>• Easy management of workforce under closed labor market</li> <li>• Flexible personnel management</li> <li>• Adequate for organization with unclear major field of work</li> <li>• Better for training generalist</li> </ul>	<ul style="list-style-type: none"> <li>• Pay corresponding to job function (same labor- same wage)</li> <li>• Resolves dissatisfaction about individual wage gap</li> <li>• Reflects external labor market well</li> <li>• Easier implementation of merit based personnel management system</li> <li>• Better for training specialist</li> </ul>
<b>Disadvantage</b>	<ul style="list-style-type: none"> <li>• Difficult to execute a system where same labor receives same wage</li> <li>• Rapid increase in labor cost</li> <li>• Difficult to respond to changes in external labor market</li> <li>• Fairness issue may be raised.</li> </ul>	<ul style="list-style-type: none"> <li>• Complicated job function evaluation procedure</li> <li>• Demotivate due to wage ceiling for each job function</li> <li>• Lack of flexibility in personnel management due to rigid personnel management</li> </ul>
<b>Adequate environment</b>	<ul style="list-style-type: none"> <li>• During times of rapid economic growth</li> <li>• Domestic competition</li> <li>• Environment where laborers' loyalty or morale is more important than their professionalism</li> <li>• Environment with similar characteristic among laborers</li> </ul>	<ul style="list-style-type: none"> <li>• During times of economic stagnation</li> <li>• Global competition</li> <li>• Environment that requires strengthening of professionalism</li> <li>• Environment with various characteristics of laborers</li> </ul>

#### **2.1.4 Wage based on job capacity**

Wage based on job capacity refers to payment determined by types and degree of laborer's job capability. Here, capacity refers to comprehensive capacity that include not only current capacity but also potential capacity. Wage based on job capacity can be understood as a mixed form of wage system based on job function determined by job characteristics and wage based on seniority or other personnel-specific factors. (Park, 2006; Lee, 1989) Wage based on job capacity bases itself on educational background or years of service and on work capability at the same time. Wage based on job capacity is a type where vocational qualification system has been applied to wage chart so corporations cannot adequately implement and manage wage based on job capacity without understanding vocational qualification system. Hence, implementation of vocational qualification system is required in order to implement wage based on job capacity. This pay system, therefore, becomes a mixture of seniority based personnel management system of the Eastern thoughts and merit based personnel management system of the Western thoughts (Goh, 2008). The wage system based on job capacity exists in many forms depending on whether entire basic wage is paid using job capacity measure alone (pure wage based on job capacity), or whether a part of wage is based on job capacity, or whether wage based on job capacity is applied with different wage rate for each rank (wage based on job capacity based by each job capacity rank). Wage based on job capacity is advantageous as individual laborer's efforts for development of job capacity leads to elevation in job capacity rank and thus motivates the workers. This system allows wide variety of application according to the organization's situation starting from seniority based wage to wage based on job function. Moreover, minimum

livelihood is guaranteed irrespective of the kind of job function the employees are responsible for and different treatment according to capability becomes possible. On the contrary, this system is also disadvantageous in that it is difficult to understand and evaluate job capacity and there is a possibility that the system may become seniority based system because of inadequate management of human resources. Seniority is the easiest proxy to monitor and lack of good management practices often lead to use of seniority as the most important factor in wage payments.

## **2.2 Healthcare organization's wage system**

From organizations' perspective, the wage is a stimulus factor that encourages laborers to engage in advisable behavior. Through the reinforcer called the wage, the corporation stimulates laborers and encourages them to make contributions consistently to achieve the goals of the organization. However, from the laborers' perspective, wage is not the only factor that keeps them in the same jobs by satisfying the economic needs of the individuals. A low wage level may not satisfy laborers though a higher wage level does not necessarily make them any happier nor motivate them to work. The wage system should be reasonably designed in accordance with the composition and payment method of the wage or the wage gap with other hospitals and professions to satisfy the social and psychological needs of individuals. In this respect, the hospitals where various professionals work together require more complexed wage systems to differentiate the allowance as per professional field, rank, educational background, career and age.

As the competition in the healthcare market is becoming fiercer, the rationalization of hospital management is to focus more on human resources management.



It requires innovation according to the management environment more than any other sectors due to the recent advancement in technological innovation, change in demand and the supply structure of labor, and the flexible deployment of labor. Furthermore, it is important to adequately distribute the performance of hospital management by managing a rational wage system to create a desirable welfare society. Nevertheless, Korean hospitals still retain the outdated wage system of the past. According to research conducted by Sung (1987) on seven public hospitals, most hospitals are run by seniority-based wage system. Firstly, the main administrative issue within hospitals is that there are many types of sundry allowances, and the characteristics and application methods of the allowances are equivocal. He argued that such an issue is attributable to how the hospitals use the allowances as a way of evading the external pressure on wage control or reducing the tax burden as much as possible and paying bonus or retirement allowances less. Secondly, another important issue that he pointed out is the lower ratio of the basic wage compared to the allowance. The characteristics of the wage system are eventually determined by the basic wage. He pointed out the fact that most of the hospitals use the single salary schedule therefore an increase in the proportion of the allowance is necessary to reflect wage differences by professional field and rank. Such a low basic wage indicates the loss of its original function and the increase of distrust in wages and an interest in the irregular and temporary wages of employees. The author also pointed out that the lack of correlation between wages and job function/capacity. It is believed that an individuals' work capabilities by profession and rank differ according to age or years of service. He argued that it is inevitable for the hospitals, where various professions work together, to have many factors that cover wages compared to an

organization with a single profession thus it is practically impossible to apply all these factors on a seniority-based wage system. According to the study by Lee (1989), most hospitals apply the wage system based on job capacity that mixes the seniority system factor with the job function factor with little variations in terms of application. It was noted that hospitals apply the salary scheme by restricting the number of occupation types and salary schemes based on various occupation types according to the number of sickbeds. In the case of allowances, the majority of hospitals apply the same method but some hospitals created or operated a distinctive allowance according to the hospital. Furthermore, benefits other than legal benefits were not run properly and most of the benefits did not have a systematic structure and instead was provided out of personal sympathy. Through research that understands the wage system of medical organizations that are larger than the hospital, Kim et al. (1997) found these organizations were applying complete differentials in wages according to occupation type. In terms of composition, the wage is consisted of a basic wage, sundry allowance, monthly bonus, and this ratio showed a difference in the tendency according to occupation type and hospital size. Doctors showed how the proportion of the basic wage among the entire wage compared to other occupations and bigger hospital sizes showed a lower proportion of the basic wage and higher proportion of a sundry allowance and bonus. Shin (2005) analyzed the wage gap within healthcare related occupations based on fundamental statistical examination materials. The author pointed out that the wage gap according to occupation type occurs from the very beginning at the labor market entry level and identified the difference in the wage compensation ratio based on the numbers of years of education received. The years of the experience-wage curve and the years of the service-

wage curve showed a significant difference statistically. Last but not least, the size of the organization which laborers belong to has been identified as having a large influence on the laborer's wage level. Park (2006) analyzed the wage system and wage form of hospital nurses and discovered that most hospitals adopt a wage system in the form of a salary and have different salary schemes according to rank, occupation type, and occupation group. In the case of receiving a bonus, all hospitals had a bonus system and the standard for the bonus was either based on a basic wage or normal wage. Also, both the good attendance allowance and holiday allowance were paid as part of the bonus. For other types of bonuses, some institutions provided a summer vacation allowance, fitness training costs, and a special bonus. Organizations that provided retirement allowances based on the legal retirement allowance took up 56.5%, which was the largest proportion.

### **2.3 Pay Satisfaction**

Pay satisfaction refers to the psychological behavior that laborers experience in relation to the economic compensation they receive in return for their labor and holds great significance in terms of human resources management. The satisfaction results can be determined by affective commitment and the perceived sacrifice commitment so clearly, they affect the efficiency of management organization. Dissatisfaction for a wage generally reduces the organization's attractiveness and affects job dissatisfaction, job transfer, absence, and the conflict between labor and management (YW Lee, 2000; Vandenberghe & Tremblay, 2008). Through various levels of research on wages, the author identified many factors that determine pay satisfaction and they included 1) pay level, 2) pay rise, 3) benefit, and 4) pay structure (Shawn M. Carraher & Buckley, 1996;

Currall, Towler, Judge, & Kohn, 2005; H. Heneman & Schwab, 1985; Weiss, Dawis, England, & Lofquist, 1967). Such factors affect the definition of pay satisfaction in various ways. For example, a laborer may be satisfied with his own pay level but may not be satisfied with the pay rise they receive according to the years of service. The satisfaction levels for a pay rise are affected by how fairly the pay has been distributed in an organization in order to adequately compensate the laborers based on their job and is strongly related to the Procedural Justice (Tekleab, Takeuchi, & Taylor, 2005). Just because a laborer receives high pay does not necessarily translate to satisfaction for the high pay nor does it affect the results of the organization so the exact measurement of pay satisfaction is necessary for the rational management of human resources.

Studies on the measurement of pay satisfaction have raised interest in the relationship between major outcome variables and pay satisfaction. That has led to progress in the measurement from the initial development of comprehensive measures to the development of a measurement tool based on the assumption that pay satisfaction is multidimensional in nature (H. Heneman & Schwab, 1985; R. L. Heneman, Greenberger, & Stephen, 1988; E. A. Locke, 1969; Weiss et al., 1967). What follows are two instruments developed by studies that initially hypothesized that the conceptual pay satisfaction level is dimensional: Minnesota Satisfaction Questionnaire (MSQ) (Weiss et al., 1967) and Pay Satisfaction Questionnaire (PSQ) (H. Heneman & Schwab, 1985; R. L. Heneman et al., 1988). The MSQ is an instrument developed by Weiss et al. under the theory that suitability for work will be variously displayed depending on the relevance between individual skills and reinforcements in the work environment. From existing research, it can be identified that MSQ consists of 4 subscales such as intrinsic

satisfaction, extrinsic satisfaction, recognition, and authority/social utility. The other instrument is the PSQ devised by Heneman and Schwab. The PSQ initially hypothesized the 5 dimensions of wage satisfaction: pay level, pay rise, benefits, pay structure, and pay administration; later those five were simplified into four dimensions by combining structure and administration in the course of empirical studies.

The MSQ was one of the outputs from the “Work Adjustment Project” at the University of Minnesota; the underlying theory is based on the assumption that suitability for work is dependent on the correspondence between the individual skills and the reinforcements that exist in the work environment (Weiss et al., 1967). The MSQ consists of 100 “long form” questions and its “short form” includes only 20 of the 100 original items. The 20 items of the short MSQ version are rated on a 5-point Likert scale.

Moorman (Moorman, 1993) analyzed the MSQ and found two factors: one assessing satisfaction that displays the intrinsic aspects of the job and the other assessing satisfaction which highlights the extrinsic aspects. Schriesheim et al. (Schriesheim, Powers, Scandura, Gardiner, & Lankau, 1993) found a structure of 3 subscales such as intrinsic, extrinsic, and general satisfaction. Mathieu’s exploratory factor analysis of the MSQ yielded four factors (Mathieu, 1991). These four subscales included satisfaction with working conditions, leadership, responsibility and extrinsic rewards. Confirmatory factor analysis performed by Igalens and Roussel (Igalens & Roussel, 1999) showed that a four-factor analysis (with intrinsic satisfaction, extrinsic satisfaction, recognition, and authority/social utility) suited the data best.

Heneman and Schwab (H. Heneman & Schwab, 1985) expanded upon Lawler’s discrepancy model on pay satisfaction to suggest a modified discrepancy model by

adding pay satisfaction dimensions and pay policy control variables. The modified PSQ consists of 18 items that tapped four dimensions: pay rise (4), pay level (4), benefits (4), and pay structure/administration (6); it is an instrument that can measure pay satisfaction levels on a 5-point scale. Orpen and Bonnici (Orpen & Bonnici, 1987) demonstrated all of the items being loaded on to one factor without highlighting any explicit distinction among the different factors after confirming the multidimensions of pay satisfaction with the PSQ. A study by Scarpello, Huber, and Vandenberg (Scarpello, Huber, & Vandenberg, 1988) found that the pay level and benefits match up with the dimensions suggested by Heneman and Schwab (H. Heneman & Schwab, 1985), but the pay rise is mixed with pay structure/administration with a three-factor solution, through validation on the stability and generality of the PSQ factor structure; more specifically, the study suggested that the workers who receive overtime pay are characterized by a four-factor measure, but salaried-exempt/hourly-paid employees may have different pay satisfaction factors. Despite this shortcoming, the studies mentioned prior to this consistently demonstrated that the PSQ measures can explain aspects of pay satisfaction structure better than the MSQ or JDI. That is because the MSQ and JDI failed to show the outcomes of benefits, while the PSQ explains the pay rise and pay administration to a greater extent. Carraher (S. M. Carraher, 1991) also validated the PSQ dimensions and concluded that the pay rise items are distributed to the pay level and pay structure/administration without showing a pay rise dimension, which is identical to the research by Scarpello, Huber, and Vandenberg (Scarpello, Huber, & Vandenberg, 1988). A study by Mulvey, Miceli, Near (Mulvey, Miceli, & Near, 1992) tried to yield three-factor, four-factor, and five-factor models using overall fit indices in a confirmatory

factor analysis and concluded that the four-factor/five-factor solutions have a better fit compared to the three-factor model. Judge and Welbourne (Judge & Welbourne, 1994) analyzed the exploratory factors of the PSQ dimensions in their study, and demonstrated i) the PSQ dimensions are reliable and can be generalized, and ii) the PSQ items are meaningfully loaded on to the pay satisfaction dimensions suggested by Heneman and Schwab (H. Heneman & Schwab, 1985). Likewise, conventional studies have raised the issues (problems) of PSQ such as the PSQ load on a single factor or unmatched structure. The overwhelming view, however, is that PSQ explains benefits, pay rise, and pay administration more effectively than the MSQ or JDI.

When the PSQ is applied to Korean organizations in order to measure pay satisfaction, a limit appears. The PSQ was originally developed for US organizations in which wages based on job functions and the annual salary system are common. This means that the model setting and validation of the PSQ can be meaningless in Korean organizations where wages based on seniority and the monthly pay system prevail. Lee (YW Lee, 2000) conducted an exploratory factor analysis on the PSQ dimensions and found that the pay rise is mixed with pay structure/administration. Thus, Lee suggested a 4-dimensional model different from that suggested by Heneman and Schwab (H. Heneman & Schwab, 1985); with the exception of two new dimensions such as “pay difference among job functions in an organization” and “pay level among different job functions in an organization”, 8 questions related to pay rise and pay administration dimensions were combined into one. That was because most organizations in Korea still raise wages without variation through labor-management negotiations each year as part of the pay policy administration as the wage system based on job functions has not been

implemented yet. In order to regard both the pay rise and pay administration as independent dimensions, the wage system based on job functions, undisclosed pay, and annual salary negotiations needs to be adopted first.

Despite a growing interest for pay satisfaction in the medical industry recently, no organized validation on the diverse factors of pay satisfaction has been made, as indicated in the aforementioned research. The current state of studies that focus on pay satisfaction in the medical industry corresponds to the initial research stage in other industries; most of their research are one-dimensional such as i) measuring pay satisfaction directly or ii) identifying the impact of pay satisfaction based on turnover arrangements by measuring pay satisfaction as part of job satisfaction. In the case of dental institutions, most of them are small-medium sized dental clinics, and the types of occupations that work there are limited, compared to hospitals, such as the dentist, dental hygienist, and nursing assistant. This has resulted in a lack of understanding for the pay system of dental clinics and created a relatively less-precise measurement of pay satisfaction.

#### **2.4. Job Satisfaction**

The labor force of the hospital consists of professional health service providers, which means the organization of it is rather complicated. Various factors would work for the efficient/effective operation of a hospital, and for that reason, studies have been made on work improvement in hospitals through the job satisfaction of various professions (Chang, Hong, Kim, Jeong, & Song, 2004; Park & Shin, 2012; Tae-sung Kim & Chan-young Heo, 2012).



### 2.4.1. Definition of Job Satisfaction

The job satisfaction level of members of an organization is becoming a key criterion in assessing the effectiveness and soundness of the organization. Why has job satisfaction become such a criterion? Why is job satisfaction the center of attention? There are several definitions of “job satisfaction.” Job satisfaction was defined and used to be treated as a collection of feelings or affective responses associated with the job situation, or “simply how people feel about different aspects of their jobs” (Hoppock, 1935; E. Locke, 1976; Martins & Proenca, 2012). More specifically, as a pleasant and positive emotion that an individual may have through job experience, job satisfaction was defined as a positive perception on wages, human relations, professional ranks, and occupational pride (Park & Shin, 2012). Beatty & Schiner (Betty & Schiner, 1981) defined it as a state of pleasant emotion or emotional orientation obtained in the individual job assessment, which is a tool to attain and promote the job value of employees. According to Porter & Lawler (Porter & Lawler, 1968), job satisfaction was defined as the extent of exceeding the reward level acknowledged reasonable by actual reward. As job satisfaction is related to job motivation, the motivational theory also deals with, directly or indirectly, the factors that affect job satisfaction, basic concept, and the decision-making process. Job satisfaction is closely related to individual satisfaction of needs relating to the given job. The motivational theory that is frequently applied to individual behavior is divided into two sub-theories: content theory and process theory. Content theory focuses on the intrinsic factors that activate, adjust, and maintain individual behavior in certain constant directions, while the process theory analyzes how individual behavior is formed.

### 2.4.1.1 Content Theory

This section focuses on the content theories of motivation, which is also called substantive theory; it focuses on which factors revitalize, set the direction of, maintain, or deter people's behavior. The "theory of need hierarchy" (Maslow, 1943) and "two or dual factor theory" ("frederick herzberg motivational theory, motivators and hygiene factors, free herzberg diagrams," n.d.) are considered two representative content theories. The theory of the need hierarchy may vary depending on how much a person's needs are practically fulfilled. In other words, the satisfaction in this theory is determined by how well single or multiple achievements are rewarded. According to Maslow, human needs can be classified into two groups: deficiency needs and growth needs. While deficiency needs are mainly fulfilled by extrinsic factors (e.g. wages, employment term), growth needs can only be fulfilled by its own intrinsic factors. The dual factory theory by Herzberg is divided again into motivational theory and hygiene theory (House & Wigdor, 1967). Factors that prevent dissatisfaction with jobs are called hygiene factors (dissatisfaction factors). If one is pleased with his or her job, it can be said his or her satisfaction is related to the job and the factors that are effective in motivating people to outperform are called motivational factors (satisfaction factors). The factors affecting job satisfaction were relevant to job content, whereas the factors that raise dissatisfaction were contextual and connected to the job context. In a nutshell, motivational factors include achievement, recognition, the job (itself), and responsibility, but hygiene factors covers supervision based on context, pay, interpersonal relationship, work environment, and personal life.

#### **2.4.1.2 Process Theory**

It is insufficient to define the process theory as simply a person's motivation, as the process theory additionally identifies factors generated in the motivation process, and emphasizes the mutual relationship between factors to explain the process of motivation and behavioral selection. This process theory is explained by two sub-theories: the expectancy theory by Vroom, Porter & Lawler and the equity theory by Adams ("adams equity theory - workplace motivational theory - how individuals measure inputs and outcomes in relation to market norms and 'referents,'" n.d.; Lawler & Suttle, 1973). Expectancy theory expands on the selection process of behavior, and focuses on mutual relativity between factors generated in the motivating process. The degree of tendency to behave in a certain way is determined by an expectation for the results such a behavior would bring about and how important or attractive the results would be to the individual. After all, expectation plays a key role in deciding a human's behavior and they will work hard once they believe their achievement will be reasonably rewarded. According to the equity theory by Adams, job satisfaction is determined by how an individual perceives the balance between inputs and outputs. If one's input-output ratio is equal to those of their peers, they believe the equity is being assured. By this, we can say that satisfaction can be decided by calculating the inputs and outputs of one's job and comparing the results with others.

#### **2.4.2 Job Satisfaction and Pay Satisfaction**

As mentioned previously, individual job satisfaction is associated with the achievement of an organization, and such job satisfaction is achieved only when

reasonable rewards are made. The types of rewards can be diverse including the adjustment of the pay level and advancement. This study, however, will limit the types and focus mainly on the relevance between job satisfaction and pay satisfaction on the basis of pay level.

In terms of the concept of pay satisfaction, three major theories have been developed so far: discrepancy theory, equity theory, and fulfillment theory. Discrepancy theory views pay satisfaction as appearing from a gap between the actual rewards received after carrying out a given job and the rewards that they thought they deserve (rewards he or she wanted to receive). The smaller the gap is, the bigger their pay satisfaction becomes (E. Locke, 1976; Porter & Lawler, 1968). Equity theory, as already mentioned, is of the view that pay significantly matters in its theory. Money is the most visible factor, and can be a variable that needs be tapped to recover equity for unsatisfied people in the simplest way possible. Fulfillment theory views satisfaction from an achievement perspective of perceived needs, and considers that pay satisfaction is determined by the amount of rewards one received by carrying out a given job to fulfill one's needs. Individual motivation is decided by a complicated function of a primary achievement (that one expects only he or she can do) and a secondary achievement (that one expects to actually receive from primary achievement). The more they expect their achievement will lead to a pay rise or advancement, the stronger the motivation they will have. On the contrary, if they believe achievement and reward are hardly related or they are suspicious of the achievement itself, they will be less likely to be motivated.

### 2.4.3 Job Satisfaction and Customer Satisfaction

Employees' satisfaction is critical especially in the service sector that directly affects customer satisfaction. That is because, in the service industry, any direct contact with customers is the moment the product is delivered and the psychological state of the employee is likely to be translated into action, which has a significant effect on customer satisfaction (Dae-gen Song, 2007). Weissman & Nathanson (Weisman & Nathanson, 1985) argued that the job satisfaction of nurses is essential to offering a decent nursing service and satisfying patients. According to a study by Young-hee Yom et al. (Yom, Kwon, Lee, Kwon, & Ko, 2009), when the job satisfaction of nurses in a medical clinic is high, the satisfaction of patients turned out to be high as well and a nurse who experienced higher job satisfaction was more productive. Mi-ran Bae et al. (Mi-ran Bae, Jin-hwa Jeon, & Jeong-wha Lee, 2013) demonstrated that the attitude and ability of staff are the determining factors that most influence consumers in the course of choosing (or reusing) a medical clinic. Hyun-sil Hong et al. (Hyun-sil Hong, Youn-hee Choi, Young-gun Ji, Sang-gyu Lee, & Ho-jang Gwon, 2006) indicated, in their research on the impact of the quality of medical service on patient satisfaction, and the kindness and professionalism of dental hygienists have the biggest effect on the recommendation of the dental clinic by patients who themselves will visit again. Dong-sung Gwak et al. (Dong-sung Gwak & Gi-doo Gang, 1999) stated in their study that the overall service quality can be improved, once the internal marketing (targeting employees) raises the satisfaction of workers (main players of service). This begins from a service profit model theory developed by Heskett et al. (Heskett, Jones, Loveman, & Sasser, Jr, W. E. Schlesinger, 1994)

#### 2.4.4 Measure of Job Satisfaction

As mentioned in 2.4.3, once the internal marketing targeting employees (main players of medical service) succeeds in raising the satisfaction of workers, the overall medical service quality can be improved. For that reason, measuring the job satisfaction of members of medical clinics clearly matters (Hee, Yeon, Health, & Information, 2012; Young-a Yim, Gun-youb Kim, & Se-mook Choi, 2012). In other words, some form of analysis on which factors make the clinic members feel satisfied with their jobs or make them want to leave is needed (Hee et al., 2012; Young-a Yim et al., 2012). The human resources of a medical clinic refer to a group of professions such as doctors, nurses, administrative staff, and medical technicians; because of different characteristics and diverse job factors, the level of job satisfaction and turnover of them may vary. That means, even in an identical organization, satisfaction for an organization, loyalty, job stress factors, and turnover intention can be different depending on the size and characteristics of the medical clinic and the professions/jobs of the members (Me-hee Kim & Me-young Jeong, 2012). Whereas there have been numerous studies that have focused on job-related characteristics and stress-triggering factors in general hospitals with diverse approaches, research undertaken on the job satisfaction of workers in dental clinics have been limited to say the least (Chang et al., 2004; Boo-wol Gang & Sun-mi Lee, 1998; Hye-young Kim et al., 2012; Dae-geun Song, 2007; Su-hyun Sim & Young-jun Seo, 2008; So-youn Jeon, 2002).

## CHAPTER 3

### RESEARCH METHODS

#### 3.1 Research Tools

In an attempt to identify the job satisfaction and pay satisfaction as well as the pay status of dental clinic staff, the development of a tool for an actual survey was intended. Sociodemographic characteristics such as gender, age, and the academic background of subjects and dental clinic's characteristics such as the number of staff and unit chairs were included. The survey also included questions for checking the current and preferred wage systems at current organizations. The Pay Satisfaction Questionnaire (PSQ) and Job Descriptive Index (JDI) were used to measure both the pay satisfaction and job satisfaction. The PSQ divides the pay satisfaction into 4 factors (18 items): pay level (4), pay rise (4), benefits (4), and pay structure/administration (6). Each item has to be answered on a Likert 5-point scale: strongly agree, agree, neutral, disagree, and strongly disagree. The JDI developed by Smith, Kendall & Hulin (1969) consists of a total of 72 questions (18 items on the job itself, 9 on salary, 9 on opportunities for advancement, 9 on supervision, and 18 on colleagues). Each item has a simple question on each factor, and the respondents may answer with YES, NO, or I DON'T KNOW. If YES is ticked for a positive item or if NO is ticked for a negative item, 3 points are given; 2 points if the answer is I DON'T KNOW, and 1 point if the answer is either NO to a positive item or YES to a negative item. After producing the average of each item, the job satisfaction

was calculated.

### **3.1.1 Tool Translation**

The PSQ and JDI which are both used for surveying the job satisfaction and pay satisfaction status were developed through the process of “forward translation-back translation” according to the methods and procedures suggested by the WHO. The English version of the PSQ and JDI questionnaires were first translated into Korean (forward translation) , and then the Korean questionnaires were translated back into English (back translation) once again to compare the two versions in different languages and reconfirm that there is no mistranslation.

### **3.1.2 Modification/Complementation through Preliminary Survey**

The Korean version of the questionnaires were distributed to a group of 10 people (consisting of dentists, dental hygienists, or administrative staff) to review the possibility of a survey on the subject (dental clinic) in advance and to check on the clarity, understandability, and appropriateness of the questionnaire. By conducting a prior survey, the opinions of 25 people were reflected in complementing/modifying part of the questionnaires on general characteristics. Two versions of the questionnaire were produced in the final stage: one for the clinic owners and another for clinic employees.

## **3.2 Subjects of the Study and Data Collection**

Data was collected from small-and-medium sized dental clinics in the



metropolitan area during 2015. The major professions required by dental clinics are dentists and dental hygienists. Such professions can be classified again according to rankings into owners and employees. Pay satisfaction and job satisfaction appear to be different depending on the types of professions. In this study, as only a limited number of professions serves in a dental clinic, the respondent groups were divided according to ranks: employees working in dental clinics and the owners (dentists) of such clinics. Thus, as mentioned earlier, the two versions of the questionnaire were produced/used for the owner group and the employee group for the survey. An online questionnaire was simultaneously carried out in an effort to raise the return rate. As a result, via mail, 170 questionnaires out of 200 for the employee group were returned, and 54 out of 100 questionnaires from the owner group were collected. By adding the newly introduced online survey, 111 questionnaires were collected from the owners and 302 from the employees.

### **3.3 Definition of Variables**

In order to utilize the social demographic characteristics of the questionnaires (distributed for identifying factors affecting pay/job satisfaction) and the features of dental clinics for analysis, re-classification was conducted as can be seen in Table 3.1. For the category of social demographic characteristics , age groups were divided into their 20s, 30s, and 40s, marital status (married/single), academic background (high-school graduate/college graduate/M.A. or higher), type of occupation (dental hygienist/nurse's aide/others including administrative staff), job experience (less than 5 years/5 years or more), tenure in a current organization (less than 3 years/3 years or

more), and average work hours during the week (40 hours or under/41-48 hours/49 hours). To reflect the characteristics of dental clinics, where the respondents work at, and the location of the clinic were divided into Seoul (including Gyeonggi-do) and other areas, size of organization (clinic/hospital), number of staff (less than 10/10 or more), number of unit chairs (less than 10ea/10-29ea/30ea or more), work during holidays or overtime (not applicable/work on holidays or overtime/work on holidays and overtime).

### **3.4 Analysis Methods**

The collected data was analyzed using STATA ver. 14.o (STATA Corp, College Station, TX, USA) and the two-tailed test was conducted at the statistical significance level of 0.05. The general characteristics of the subjects and the wage system of dental clinics were analyzed using frequency, percentage, average, and standard deviation. After checking on the reliability and validity of job satisfaction/pay satisfaction measuring tools, a regression analysis was performed to identify the factors affecting job satisfaction and/or pay satisfaction.

Valid and reliable measuring tools are the essential components for every study. For the interpretation of research results, the validity of measuring tools should be confirmed (Tafreshi & Yaghmaei, 2006). Validity means the process of checking if a measuring tool actually measures the intended concept as originally planned. Analysis methods are divided into three: content validity, criterion-related validity, and construct validity. Among them, the construct validity of measuring tools is a method to evaluate if a physiological construct concept is properly measured (Tak, 2007).

Table 3.1. Characteristics of the variables used in the study

Type	Characteristics
Gender	Man
	Woman
Age	In their 20s
	In their 30s
	In their 40s or older
Marital Status	Single
	Married
Academic Background	High school graduate
	College graduate
	M.A. or higher
Type of Occupation	Dental hygienist
	Nurse's aide
	Others (Office staff)
Wage	Less than KRW 1.5 million
	KRW 1.5-1.99 million
	KRW 2 million or more
Form of Employment	Regular
	Temporary
Total Years of Experience	Less than 5 years
	5 years or more
Tenure in Current Organization	Less than 3 years
	3 years or more
Average Work Hours	Less than 40 hours
	41-48 hours
	49 hours or more
Location	Seoul/Gyeonggi-do
	Other areas
Size of Medical Organization	Dental clinic
	Dental hospital
No. of Employees	Less than 10
	10 or more
No. of Unit Chairs	Less than 10ea
	10-29ea
	30ea or more
Work on Holidays or Overtime	Not applicable
	Overtime or work on holidays
	Overtime and work on holidays
Average Training Hours	Less than 30 min.
	30 min.- less than 1 hour
	1 hour- less than 1 hour 30 min.
	1 hour 30 min.- less than 2 hours
	2 hours- less than 2 hours 30 min.

Such a construct validity analysis may adopt various methods such as the review and factor analysis of convergent validity and discriminant validity, both of which use comparisons between groups and the correlation coefficient. Factor analysis is the most widely-used statistical analysis method for construct validity analysis, if the tool to measure a single concept can also measure multiple subordinate concepts (Hyun-cheol Gang, 2013).

Factor analysis is a statistical method to measure the common characteristics if a correlation exists among more than two variables; it is used when simplifying statistics by eliminating less significant variables. Factor analysis can be divided into exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) according to the particular purpose. EFA is a method used to investigate the relationship between measuring variables and unidentified latent variables (Acock, 2013; Byung-rul Bae, 2011; Hee-ja Seong & Hyun-soo Gwon, 2010; Suhr, 2003).

The relationship between variables in EFA are determined in the following steps: First, check the variable with a higher correlation coefficient, and use the principal component to extract the values with a minimum eigenvalue of “1” or higher; then, for an easier interpretation of the confirmed factors and relocation of dispersion (to have a meaningful type of factor), conduct orthogonal rotation. While the EFA analyzes the dimensionality of the set of items, CFA is used to validate the hypothesis on whether each item belongs to a specific factor or not. As this study was intended to review the validity of Korean-style PSQ among Korean dental clinic staff, an EFA was conducted to clarify the relationship between the measuring variables and latent variables. In an attempt to check how well the variables, express a concept after grouping through factor analysis, an

internal consistency was measured.

The calculated value of the concept is called Cronbach alpha ( $\alpha$ ) or the reliability of questions; Cronbach  $\alpha$  has a value between 0 and 1, and if the value is closer to “1,” then the internal consistency can be viewed as high.

Lastly, linear regression analysis was carried out to identify the factors affecting pay satisfaction and job satisfaction. The grand means of the PSQ and JDI were set as dependent variables, and the social demographic characteristics, general characteristics of dental clinics, and the wage system of dental clinics were included as explanatory variables. Hierarchical multiple regression analysis that puts each variable in consecutive order was conducted to see the alteration in the degree of the effect of variables according to the addition of independent variables; variable groups per model were added in 3 phases as shown in Fig. 3.1 below. Model 1 included the social demographic characteristics of subjects and the general characteristics of dental clinics, and Model 2 reflected the wage system of the dental clinics where the subjects work. Model 3, a combined version of Model 1 and Mode 2, was intended to check the influence of each sub criteria by adding the PSQ’s sub criteria as explanatory variables, and if analysis has already been conducted with the JDI then as a dependent variable.

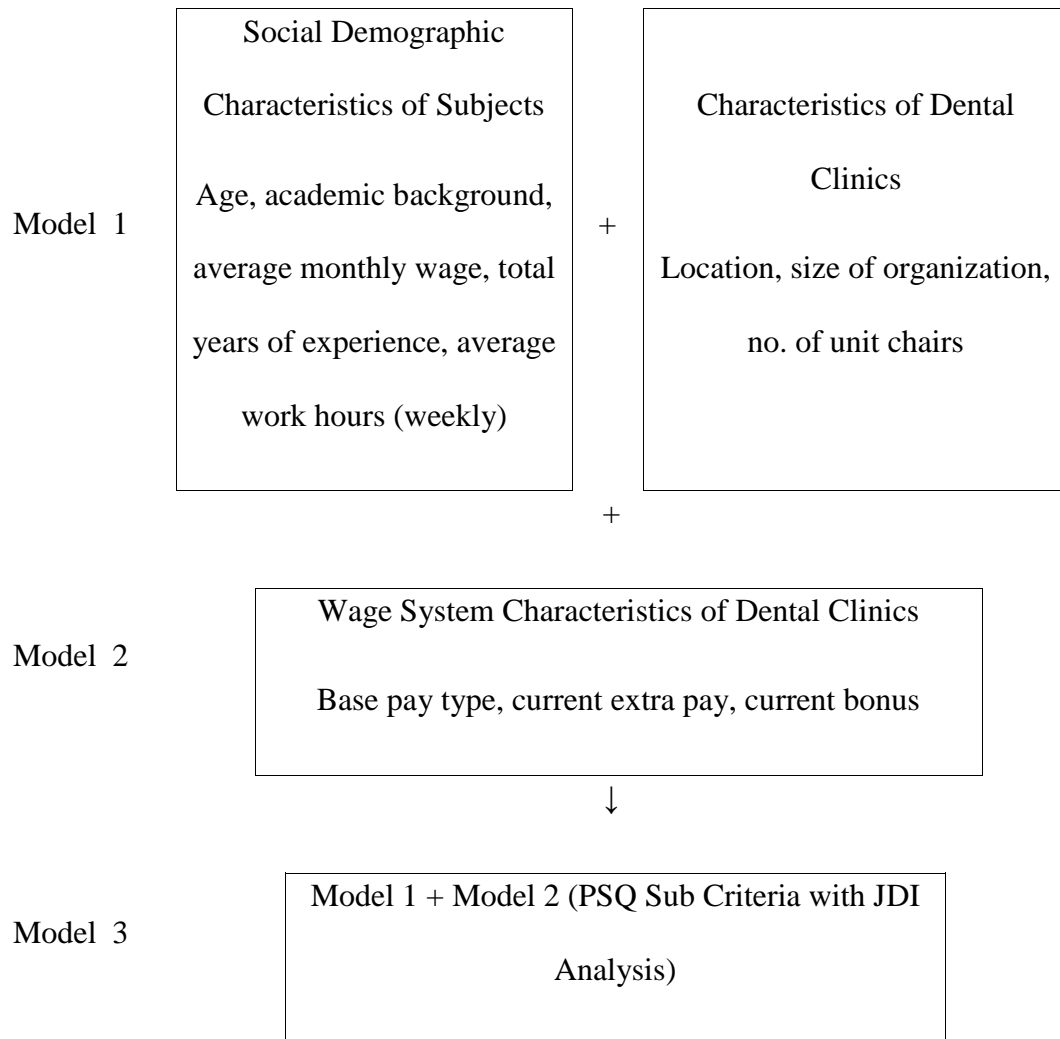


Figure 3.1. Determination of PSQ and JDI

## CHAPTER 4

### RESULTS

#### 4.1 General Characteristics of Subjects

The general characteristics of subjects were divided into the employer group and employee group as in Table 4.1 and Table 4.2 below. In terms of the gender of the employee group, most of them (296) turned out to be female at 98.01%; employees “in their 20s” accounted for the largest portion at 62.46% in the age category; college graduates at 86.71% in academic background, and dental hygienists at 74.07% in profession; a salary of KRW 2 million or more (37.63%), less than KRW 1.5 million (19.66%); in the form of employment, permanent positions were the highest at 229 (87.50%); in terms of total years of experience, 153 said less than 3 years (50%), 148 picked 5 years or more (49.17%), which is only a slight difference; for weekly work hours, 173 (58.25%) said they work 41-48 hours (exceeding the legal working hours); the locations of dental clinics, 203 said they work in the metropolitan area (Seoul/Gyeonggi); the size of the organization, 265 (87.75%) said they work at dental clinics (not hospitals); the number of unit chairs, 189 (62.58%) said they possess less than 10ea; and 182 (60.62%) answered they work on holidays and/or overtime.

Table 4.1. General Characteristics of Subjects- Employees

	<b>Classification</b>	<b>N</b>	<b>Percent</b>	<b>Cumulate percent</b>
Gender	Man	6	1.99	1.99
	Woman	296	98.01	100.00
Age	In their 20s	178	62.46	62.46
	In their 30s	71	24.91	87.37
	In their 40s or older	36	12.63	100.00
Marital Status	Single	207	68.77	68.77
	Married	94	31.23	100.00
Academic Background	High school graduate	29	9.63	9.63
	College graduate	261	86.71	96.35
	M.A. or higher	11	3.65	100.00
Type of Occupation	Dental hygienist	220	74.07	74.07
	Nurse's aide	53	17.85	91.92
	Others (Office staff)	24	8.08	100.00
Wage	Less than KRW 1.5 million	58	19.66	19.66
	KRW 1.5-1.99 million	126	42.71	62.37
	KRW 2 million or more	111	37.63	100.00
Form of Employment	Regular	259	87.50	87.50
	Temporary	37	12.50	100.00
Total Years of Experience	Less than 5 years	153	50.83	50.83
	5 years or more	148	49.17	100.00
Tenure in Current Organization	Less than 3 years	184	61.13	61.13
	3 years or more	117	38.87	100.00
Average Work Hours	Less than 40 hours	93	31.31	31.31
	41-48 hours	173	58.25	89.56
	49 hours or more	31	10.44	100.00
Location	Seoul/Gyeonggi-do	203	67.44	67.44
	Other areas	98	32.56	100.00
Size of Medical Organization	Dental clinic	265	87.75	87.75
	Dental hospital	37	12.25	100.00

**Note :** Data was collected from small-and-medium sized dental clinics in the metropolitan area during 2015



Table 4.1. General Characteristics of Subjects- Employees (continued)

Classification		N	Percent	Cumulate percent
No. of Employees	Less than 10	173	57.28	57.28
	10 or more	129	42.72	100.00
No. of Unit Chairs	Less than 10ea	189	62.58	62.58
	10-29ea	95	31.46	94.04
	30ea or more	18	5.96	100.00
Work on Holidays or Overtime	Not applicable	120	39.74	39.74
	Overtime or work on holidays	139	46.03	85.76
	Overtime and work on holidays	43	14.24	100.00
Average Training Hours	Less than 30 min.	140	46.82	46.82
	30 min.- less than 1 hour	88	29.43	76.25
	1 hour- less than 1 hour 30 min.	41	13.71	89.97
	1 hour 30 min.- less than 2 hours	12	4.01	93.98
	2 hours- less than 2 hours 30 min.	18	6.02	100.00

Regarding the gender of the employer group, however, most of them were male dentists at 79 (70.54%). Employers “in their 40s or older” accounted for the largest portion at 95 (88.79%); for total years of experience, most of them (94) picked 5 years or more (83.93%); 70 people (62.50%) said they “work an average of 41-48 hours a week” and 63 (56.25%) said they “do not work overtime or on holidays.” Refer to Table 4.2 below.

Table 4.2. General Characteristics of Subjects - Employers

	Dentist	N	Percent	Cumulate percent
Gender	Man	79	70.54	70.54
	Woman	33	29.46	100
Age	In their 20s	3	2.8	2.8
	In their 30s	9	8.41	11.21
	In their 40s or older	95	88.79	100
Marital Status	Single	11	9.82	9.82
	Married	101	90.18	100
Academic Background	High school graduate	23	20.54	20.54
	College graduate	62	55.36	75.89
	M.A. or higher	27	24.11	100
Total Years of Experience	Less than 5 years	18	16.07	16.07
	5 years or more	94	83.93	100
Average Work Hours	Less than 40 hours	34	30.36	30.36
	41-48 hours	70	62.5	92.86
	49 hours or more	8	7.14	100
Location	Seoul/Gyeonggi-do	80	71.43	71.43
	Other areas	32	28.57	100
Size of Medical Organization	Dental clinic	106	94.64	94.64
	Dental hospital	6	5.36	100
No. of Employees	Less than 10	91	81.25	81.25
	10 or more	21	18.75	100
No. of Unit Chairs	Less than 10ea	92	82.14	82.14
	10-29ea	17	15.18	97.32
	30ea or more	3	2.68	100
Work on Holidays or Overtime	Not applicable	63	56.25	56.25
	Overtime or work on holidays	46	41.07	97.32
	Overtime and work on holidays	3	2.68	100

## 4.2 Wage Type of Dental Clinics

In regards to the wage types of dental clinics the employee group belongs to, a survey was conducted and respondents could pick multiple answers; the results are summarized in Table 4.3 and Table 4.4. When asked what are the (current) base-pay type and the preferred wage type for the same profession in the current workplace, 237 (66.39%) and 146 (39.67%), respectively, picked “wage based on seniority.” On the question if they received extra pay, bonus, and legal severance pay in addition to the base pay, 154 (51.16%) said they got extra pay, 161 (54.03%) picked a bonus, and 281 (93.67%) said they received severance pay.

Table 4.3. Current Wage Type vs. Preferred Wage Type in Dental Clinics

		Current			Preferred		
		n	%	Cum %	n	%	Cum %
Base pay type	Wage based on seniority	237	66.39	66.39	146	39.67	39.67
	Wage based on job function	65	18.21	84.60	90	24.46	64.13
	Wage based on job capacity	55	15.41	100	132	35.87	100
Extra payments	Yes	154	51.16	51.16			
	No	96	31.89	83.06			
	I don't know	51	16.94	100			
Bonuses	Yes	161	54.03	54.03			
	No	90	30.2	84.23			
	I don't know	47	15.77	100			
Severance pay	Yes	281	93.67	93.67			
	No	19	6.33	100			

Table 4.4 shows the different types of extra payments they currently receive or prefer. The extra payments they receive currently included a meal (food) allowance (21.34%), overtime pay (16.42%), vacation pay (10.75%) in descending order. They preferred vacation pay (16.83%), commuting/transportation pay (10.85%), and an individual job allowance (9.35%). As most of the subjects were women, 4.99% answered that they prefer period pay.

The national holiday bonus (53.08%) and goal-achievement bonus (22.52%) were the most favored types among the bonus they receive currently, and as a preferred bonus, they chose the regular bonus (21.19%), year-end bonus (22.95%), and quarterly bonus (20.05%). See Table 4.5 below.

### **4.3 Pay Satisfaction of Dental Clinic Staff**

#### **4.3.1 Analysis of Sub Criteria of Pay Satisfaction**

Factor analysis was conducted to identify the sub criteria that constitute the pay satisfaction by reflecting the characteristics of dental clinics. In order to reflect the structure between factors, the varimax method of orthogonal rotation was utilized; the results of the principal component analysis are in Table 4.6. Three factors with an eigenvalue of “1” or higher were adopted; those factors were named as “pay administration system,” “benefits,” and “wage payment level,” and the loaded sub criteria of each factor were 12, 4, and 2, respectively. To check for the internal consistency per sub criterion of pay satisfaction, Cronbach alpha was calculated; the Cronbach alpha were 0.916, 0.890, and 0.911 respectively.

Table 4.4. Current Extra Payments vs. Preferred Extra Payments

	Current			Preferred		
	n	%	Cum %	n	%	Cum %
Individual job allowance	47	7.01	20.26	75	9.35	26.6
Group job allowance	18	2.69	7.76	20	2.49	7.09
Job/Rank/Position allowance	45	6.72	19.4	57	7.11	20.21
Qualification/License allowance	25	3.73	10.78	35	4.36	12.41
Unused annual/monthly leave pay	47	7.01	20.26	66	8.23	23.4
Family allowance	4	0.6	1.72	11	1.37	3.9
Meal allowance	143	21.34	61.64	39	4.86	13.83
Commuting/transportation allowance	12	1.79	5.17	87	10.85	30.85
Social insurance	44	6.57	18.97	11	1.37	3.9
Adjustment allowance	7	1.04	3.02	2	0.25	0.71
Overtime pay	110	16.42	47.41	61	7.61	21.63
Temporary job allowance	1	0.15	0.43	3	0.37	1.06
Vacation pay	72	10.75	31.03	135	16.83	47.87
Long-service allowance	38	5.67	16.38	65	8.1	23.05
Period pay	2	0.3	0.86	40	4.99	14.18
Treatment support/research pay	13	1.94	5.6	20	2.49	7.09
Accounts allowance	0	0	0	1	0.12	0.35
Special operation/risk allowance	0	0	0	2	0.25	0.71
Special work allowance	11	1.64	4.74	12	1.5	4.26
Physical training payment	19	2.84	8.19	59	7.36	20.92
Others	12	1.79	5.17	1	0.12	0.35

Table 4.5. Current Bonus vs. Preferred Bonus

	Current			Preferred		
	n	%	Cum %	n	%	Cum %
Regular bonus	25	6.7	10.25	168	21.19	60.43
Year-end bonus	15	4.02	6.15	182	22.95	65.47
Quarterly bonus	19	5.09	7.79	159	20.05	57.19
Special compensation	22	5.9	9.02	50	6.31	17.99
National holiday bonus	198	53.08	81.15	99	12.48	35.61
Goal-achievement bonus	84	22.52	34.43	104	13.11	37.41
Clinic-launching bonus	0	0	0	24	3.03	8.63
Others	10	2.68	4.1	7	0.88	2.52

#### 4.3.2 Comparison of the Pay Satisfaction Averages with General Characteristics

Table 4.7 shows the results comparing the sub criteria (“pay administration system,” “benefits,” and “pay level”) and the grand mean of pay satisfaction. The “Pay administration system” showed a statistically-meaningful decline according to the number of unit chairs ( $p < 0.05$ ) with less than 10ea (2.839), 10-29ea (2.624), and 30ea or more (2.532). In relation to the “benefits” factors, as they get older and have a higher academic background, the average points significantly rose ( $p < 0.05$ ). In the “pay level” factor, there was a statistically-meaningful variance depending on the academic background and the average wage ( $p < 0.05$ ). After comparing the averages for all levels of job satisfaction, it was found that there is a significant variance, depending on the ages of respondents and the number of unit chairs possessed by the medical center.

Table 4.6. Sub Criteria of Pay Satisfaction in Dental Clinics

No	Classification	Pay admin. System	Benefits	Pay level
1	My recent pay raise	0.702		
2	Influence of my boss on my pay determination	0.680		
3	My usual pay (received in the past)	0.611		
4	Current wage system of my organization	0.759		
5	Information availability of the current wage system	0.721		
6	Overall pay level	0.827		
7	Pay level of other jobs in the organization	0.825		
8	Consistency in the wage policy of the organization	0.808		
9	Amount of current wage	0.790		
10	The way the pay rise is decided	0.747		
11	Wage gap among different jobs in the organization	0.766		
12	Method of pay administration in the organization	0.742		
13	Types of benefits I received		0.560	
14	My benefits paid by the company		0.494	
15	Monetary value of my all benefits		0.384	
16	No. of my benefits		0.577	
17	Actual (after-tax) income			0.474
18	Current wage			0.390
	Cronbach Alpha	0.916	0.890	0.911

Table 4.7. Pay Satisfaction of Dental Clinic Staff

		Wage admin. system			Benefits			Pay level			Pay satisfaction (total)		
		Mean /SD	t/F	p-value	Mean /SD	t/F	p-value	Mean /SD	t/F	p-value	Mean /SD	t/F	p-value
Total Years of Experience	Less than 5 years	2.780	0.747	0.456	2.596	0.054	0.957	2.755	-1.413	0.159	2.737	0.3143	0.753
		0.588			0.718			0.759			0.571		
	5 years or more	2.729			2.592			2.878			2.715		
		0.599			0.743			0.744			0.593		
Age	In their 20s	2.708	2.600	0.076	2.518	3.940	0.021	2.694	5.940	0.003	2.664	3.92	0.020
		0.563			0.714			0.750			0.547		
	In their 30s	2.718			2.554			2.886			2.701		
		0.591			0.740			0.757			0.601		
	In their 40s or older	2.949			2.889			3.139			2.957		
		0.682			0.755			0.723			0.632		
Academic Background	High school graduate	2.853	1.980	0.140	2.750	3.930	0.021	3.103	6.030	0.003	2.858	3.45	0.033
		0.595			0.732			0.760			0.602		
	College graduate	2.729			2.553			2.752			2.692		
		0.594			0.728			0.741			0.577		
	M.A. or higher	3.045			3.114			3.364			3.096		
		0.524			0.585			0.869			0.544		

Analyzed by t-test or Oneway ANOVA, p<0.05.



Table 4.7. Pay Satisfaction of Dental Clinic Staff (continued)

		Wage admin. system			Benefits			Pay level			Pay satisfaction (total)		
		Mean /SD	t/F	p-value	Mean /SD	t/F	p-value	Mean /SD	t/F	p-value	Mean /SD	t/F	p-value
Average wage (monthly)	Less than KRW 1.5 million	2.708	0.200	0.821	2.569	0.040	0.957	2.569	4.630	0.011	2.661	0.43	0.649
	KRW 1.5-1.99 million	0.599			0.743			0.722			0.581		
	KRW 2 million or more	2.757			2.575			2.798			2.721		
		0.609			0.722			0.759			0.596		
		2.768			2.599			2.941			2.750		
Average Work Hours (Weekly)	Less than 40 hours	0.587			0.752			0.771			0.580		
	41-48 hours	2.769	2.190	0.114	2.559	1.060	0.347	2.823	1.080	0.340	2.728	2.01	0.136
	49 hours or more	0.574			0.746			0.772			0.565		
		2.717			2.583			2.782			2.695		
		0.611			0.733			0.753			0.596		
Location	Seoul/ Gyeonggi-do	2.958			2.774			3.000			2.922		
	Other areas	0.529			0.690			0.764			0.539		
		2.753	0.005	0.996	2.549	-1.369	0.172	2.818	0.309	0.757	2.715	-0.338	0.735
		0.575			0.718			0.778			0.571		
	2.753			2.673			2.789			2.739			
	0.633			0.756			0.725			0.609			

Analyzed by t-test or Oneway ANOVA, p<0.05.

Table 4.7. Pay Satisfaction of Dental Clinic Staff (continued)

		Wage admin. system			Benefits			Pay level			Pay satisfaction (total)		
		Mean /SD	t/F	p-value	Mean /SD	t/F	p-value	Mean /SD	t/F	p-value	Mean /SD	t/F	p-value
Size of Organization	Dental clinic	2.783	2.327	0.021	2.598	0.444	0.658	2.839	1.842	0.066	2.748	1.969	0.049
		0.558			0.720			0.740			0.556		
	Dental hospital	2.543			2.541			2.595			2.548		
		0.774			0.813			0.865			0.728		
No. of Unit Chairs	Less than 10ea	2.839	5.620	0.004	2.610	1.710	0.183	2.963	11.460	0.000	2.802	4.73	0.009
		0.575			0.759			0.736			0.583		
	10-29ea	2.624			2.505			2.527			2.587		
		0.570			0.669			0.727			0.540		
	30ea or more	2.532			2.833			2.667			2.614		
		0.737			0.702			0.748			0.654		

Analyzed by t-test or Oneway ANOVA, p<0.05.

#### **4.4 Job Satisfaction of Dental Clinic Staff**

Table 4.8 describes a variance in job satisfaction depending on the general characteristics of dental clinic staff. Among the various factors constituting job satisfaction, respondents in their 40s displayed lower points at 0.164 than those in their 20s in the age category. If they have a higher academic background, then their satisfaction with colleagues increased ( $p < 0.05$ ). There was a statistically-meaningful variance in job satisfaction depending on the average monthly wage ( $p < 0.05$ ). The wage showed a significant difference among the factors such as age, academic background, average monthly wage, and the number of unit chairs ( $p < 0.05$ ). Regarding supervision, lower points were observed in the job experience of 5 years or more, compared to that of less than 5 years ( $p < 0.05$ ). No significant variance was detected in opportunities for advancement, supervision, and the average points for overall job satisfaction.

#### **4.5 Factors Affecting Pay Satisfaction**

Table 4.9, 4.10, and 4.11 show the results of linear regression analysis conducted by setting the pay satisfaction as a dependent variable in order to check on the factors affecting the pay satisfaction of dental clinic staff.

Table 4.9 sets the general characteristics of subjects as explanatory variables and shows that age, the average monthly wage, total years of experience, average work hours a week, and the number of chairs possessed by dental clinics have a statistically-meaningful effect on pay satisfaction ( $p < 0.05$ ). This means that the respondents in their 40s show a 0.24 points higher satisfaction than those in their 20s. We can also determine that there is higher pay satisfaction in work that is over 49 hours than work that is less

than 40 hours.

Table 4.10 is the analysis results obtained by setting the pay characteristics as an exploratory variable. Pay satisfaction significantly increased by 0.25 points with a wage system that is based on job function (not seniority) ( $p < 0.05$ ). Significantly, it decreased when more than three extra allowances were paid, compared to “no allowance,” and increased when two or less bonuses are paid compared to no bonus at all ( $p < 0.05$ ).

Table 4.11 was drawn when both the general characteristics of subjects and the pay characteristics were simultaneously considered. Variables that affect pay satisfaction significantly included age, weekly average work hours, the number of unit chairs, and the base pay type.

#### **4.6 Factors Affecting Job Satisfaction**

Table 4.12, Table 4.13 and Table 4.14 are the results of linear regression analysis conducted by setting the general characteristics of subjects, the wage characteristics of dental clinics, and the sub criteria of pay satisfaction as exploratory variables in order to check the factors affecting the job satisfaction of dental clinic staff.

Table 4.12 is the results obtained when only the general characteristics of the subjects were considered; it was found that the monthly salary, total years of experience, and the number of unit chairs possessed by the medical organization had a meaningful effect on job satisfaction. More specifically, the group receiving KRW 2 million or more showed 0.10 points higher job satisfaction than those receiving less than KRW 1.5 million; for the number of unit chairs, the group with more than 30ea showed 0.18 points higher job satisfaction than the group with less than 10ea; for the total years of

experience, the group who worked for 5 years or more showed 0.09 points lower job satisfaction than those who worked for less than 5 years.

The analysis conducted after setting the wage characteristics and pay satisfaction as the sub criteria (benefits and overall pay level) had a statistically-meaningful effect on job satisfaction; the group who received their wages based on job function showed 0.09 point higher job satisfaction than those who received seniority-based wages; whenever the recognition on benefits increases “1 unit,” job satisfaction rose by 0.06 points; when they were satisfied with their overall pay level, then the job satisfaction increased by 0.05 points (Table 4.13).

Table 4.14 displays the results obtained by setting the general characteristics of the subjects and the sub criteria of pay satisfaction, simultaneously, as explanatory variables. The total years of experience, the number of unit chairs, benefits, and overall pay level showed a statistically-meaningful effect.

Table 4-15 shows the result of the difference between the sizes of dental institutions by applying model 3 after dividing dental institutions into units (less than 10, 10 or more than 10). As examining the factors- general characteristics of subjects, the wage characteristics – affecting the job satisfaction, age and average work hours were discovered as major variables for pay satisfaction among dental institutions which are less than 10. In dental institutions that are 10 or more than 10, base pay type and current bonus critically affected the pay satisfaction. For job satisfaction, average monthly wage, total years of experience, current bonus, and pay satisfaction significantly affected dental institutions which are less than 10. In dental institutions that are 10 or more than 10, only sub criteria of pay satisfaction affected job satisfaction.

Table 4.8. Job Satisfaction of Dental Clinic Staff

		Colleagues			Job			Wage			Opportunities for Advancement			Supervision			Job Satisfaction (total)		
		Mean /SD	t/F	P-value	Mean /SD	t/F	P-value	Mean /SD	t/F	P-value	Mean /SD	t/F	P-value	Mean /SD	t/F	P-value	Mean /SD	t/F	P-value
Location	Seoul/ Gyeonggi -do	2418	0.958	0.339	2248	0.569	0.570	1.610	3.198	0.002	1.804	-1.539	0.125	2311	0.530	0.596	2171	1.112	0.267
		0.381			0.346			0.445			0.448			0.364			0.245		
	Other areas	2376			2224			1.438			1.888			2.288			2.139		
		0.318			0.332			0.418			0.438			0.321			0.211		
Size of Organization	Dental clinic	2.408	0.605	0.546	2.227	-1.735	0.084	1.572	1.762	0.079	1.846	1.409	0.160	2.309	0.914	0.362	2.164	0.704	0.482
		0.353			0.332			0.438			0.427			0.337			0.226		
	Dental hospital	2.369			2.330			1.436			1.736			2.253			2.135		
		0.424			0.389			0.472			0.553			0.436			0.289		
Total Years of Experience	Less than 5 years	2.456	2.526	0.012	2.228	-0.666	0.513	1.485	-2.920	0.004	1.857	0.997	0.320	2.367	3.242	0.001	2.181	1.454	0.147
		0.368			0.337			0.405			0.413			0.329			0.231		
	5 years or more	2.351			2.254			1.632			1.806			2.238			2.141		
		0.349			0.344			0.468			0.477			0.359			0.236		

Analyzed by t-test or Oneway ANOVA, p<0.05.

Table 4.8. Job Satisfaction of Dental Clinic Staff (continued)

	Colleagues			Job			Wage			Opportunities for Advancement			Supervision			Job Satisfaction (total)			
	Mean /SD	t/F	P-value	Mean /SD	t/F	P-value	Mean /SD	t/F	P-value	Mean /SD	t/F	P-value	Mean /SD	t/F	P-value	Mean /SD	t/F	P-value	
Age	In their 20s	2439	3.800	0.024	2208	1.090	0.337	1.497	3.100	0.047	1.848	1.310	0.272	2.317	0.190	0.830	2.159	0.090	0.914
		0.351			0.333			0.438			0.438			0.353			0.230		
	In their 30s	2360			2270			1.562			1.749			2.295			2.146		
		0.334			0.351			0.442			0.439			0.360			0.241		
	In their 40s or older	2276	-0.164		2268			1.692			1.850			2.285			2.152		
		0.387			0.364			0.439			0.503			0.331			0.230		
Academic Background	High school graduate	2216	5.360	0.005	2166	1.090	0.338	1.636	3.800	0.023	1.787	0.180	0.832	2.306	1.720	0.182	2.099	1.320	0.270
		0.368			0.341			0.424			0.354			0.301			0.207		
	College graduate	2417			2248			1.533			1.838			2.310			2.165		
		0.354			0.339			0.435			0.452			0.351			0.235		
	M.A. or higher	2571			2323			1.879			1.808			2.111			2.212		
		0.407			0.274			0.580			0.524			0.432			0.270		

Analyzed by t-test or Oneway ANOVA, p<0.05.

Table 4.8. Job Satisfaction of Dental Clinic Staff (continued)

		Colleagues			Job			Wage			Opportunities for Advancement			Supervision			Job Satisfaction (total)		
		Mean SD	tF	p-value	Mean SD	tF	p-value	Mean SD	tF	p-value	Mean SD	tF	p-value	Mean SD	tF	p-value	Mean SD	tF	p-value
Average wage (monthly)	Less than KRW 1.5 million	2.381	0.520	0.592	2.160	2.790	0.063	1.421	6.920	0.001	1.883	0.470	0.628	2.336	2.560	0.079	2.132	0.500	0.606
		0.362			0.381			0.406			0.375			0.324			0.240		
	KRW 1.5- 1.99 million	2.429			2.232			1.510			1.822			2.341			2.167		
		0.358			0.324			0.406			0.436			0.339			0.216		
	KRW 2 million or more	2.388			2.289			1.664			1.817			2.245			2.167		
		0.371			0.337			0.477			0.497			0.375			0.256		
Average Work Hours (Weekly)	Less than 40 hours	2.405	0.630	0.535	2.236	1.790	0.170	1.546	0.350	0.702	1.838	0.020	0.980	2.305	1.950	0.145	2.159	2.030	0.133
		0.383			0.318			0.456			0.448			0.397			0.244		
	41-48 hours	2.389			2.224			1.553			1.826			2.280			2.146		
		0.348			0.352			0.429			0.445			0.335			0.230		
	49 hours or more	2.468			2.349			1.621			1.829			2.415			2.239		
		0.395			0.348			0.501			0.469			0.266			0.233		

Analyzed by t-test or Oneway ANOVA, p<0.05.



Table 4.8. Job Satisfaction of Dental Clinic Staff (continued)

		Colleagues			Job			Wage			Opportunities for Advancement			Supervision			Job Satisfaction (total)		
		Mean SD	t/F	p-value	Mean SD	t/F	p-value	Mean SD	t/F	p-value	Mean SD	t/F	p-value	Mean SD	t/F	p-value	Mean SD	t/F	p-value
No. of Unit Chairs	Less than 10ea	2376	1570	0209	2233	0340	0710	1615	4960	0008	1825	0120	0885	2285	2360	0096	2153	0550	0577
		0358			0338			0455			0447			0337			0228		
	10-29ea	2443			2241			1472			1850			2304			2163		
		0373			0328			0409			0407			0379			0247		
	30ea or more	2485			2302			1377			1809			2472			2214		
		0332			0441			0390			0617			0288			0234		

Analyzed by t-test or Oneway ANOVA, p<0.05.

Table 4.9. Factors Affecting Pay Satisfaction: General Characteristics

		<b>Coefficient</b>	<b>SE</b>	<b>95% CI</b>	
Age	In their 20s				
	In their 30s	0.040	0.099	-0.123	0.203
	In their 40s or older	0.244	0.124	0.039	0.448
Academic Background	High school graduate				
	College graduate	-0.057	0.130	-0.271	0.157
	M.A. or higher	0.332	0.232	-0.050	0.715
Average Monthly Wage	Less than KRW 1.5 million				
	KRW 1.5-1.99 million	0.154	0.099	-0.008	0.317
	KRW 2 million or more	0.219	0.131	0.004	0.435
Total Years of Experience	Less than 5 years				
	5 years or more	-0.180	0.096	-0.338	-0.022
Average Work Hours	Less than 40 hours				
	41-48 hours	0.002	0.078	-0.127	0.132
	49 hours or more	0.305	0.127	0.095	0.515
Location	Seoul/Gyeonggi-do				
	Other areas	0.118	0.079	-0.012	0.249
Size of Medical Organization	Dental clinic				
	Dental hospital	-0.188	0.133	-0.408	0.032
No. of Unit Chairs	Less than 10ea				
	10-29ea	-0.196	0.081	-0.330	-0.063
	30ea or more	-0.079	0.189	-0.391	0.234
	_cons	2.913	0.233	2.529	3.298

Table 4.10. Factors Affecting Pay Satisfaction: Wage Characteristics

		<b>Coefficient</b>	<b>SE</b>	<b>95% CI</b>	
		Wage based on seniority			
Base pay type	Wage based on job function	0.252	0.114	0.027	0.477
	Wage based on job capacity	-0.053	0.152	-0.352	0.246
	Multiple choices applied	-0.138	0.091	-0.318	0.042
		N/A			
Current extra payments (allowance)	1-2 payments	-0.184	0.096	-0.373	0.005
	3 payments or more	-0.217	0.097	-0.407	-0.026
		N/A			
Current Bonus	1-2 bonuses	0.191	0.094	0.007	0.376
	3 bonuses or more	0.265	0.140	-0.009	0.540
	_cons	2.725	0.096	2.537	2.914

Table 4.11. Factors Affecting Pay Satisfaction: General Characteristics and Wage Characteristics

		<b>Coefficient</b>	<b>SE</b>	<b>95% CI</b>	
Age	In their 20s				
	In their 30s	0.090	0.103	-0.113	0.293
	In their 40s or older	0.288	0.128	0.037	0.540
Wage	Less than KRW 1.5 million				
	KRW 1.5-1.99 million	0.087	0.099	-0.109	0.283
	KRW 2 million or more	0.093	0.130	-0.164	0.349
Total Years of Experience	Less than 5 years				
	5 years or more	-0.157	0.099	-0.352	0.038
Average Work Hours	Less than 40 hours				
	41-48 hours	-0.001	0.080	-0.158	0.157
	49 hours or more	0.293	0.130	0.037	0.550
No. of Unit Chairs	Less than 10ea				
	10-29ea	-0.235	0.084	-0.400	-0.071
	30ea or more	-0.210	0.159	-0.523	0.104
Base pay type	Wage based on seniority				
	Wage based on job function	0.278	0.121	0.040	0.517
	Wage based on job capacity	-0.042	0.152	-0.341	0.257
	Multiple choices applied	-0.028	0.100	-0.225	0.169
Current extra payments (allowance)	N/A				
	1-2 payments	-0.097	0.105	-0.304	0.111
	3 payments or more	-0.072	0.108	-0.285	0.141
Current Bonus	N/A				
	1-2 bonuses	0.158	0.103	-0.045	0.361
	3 bonuses or more	0.226	0.145	-0.060	0.512
	_cons	2.783	0.171		

Table 4.12. Factors Affecting Job Satisfaction: General Characteristics

		<b>Coef.</b>	<b>SE</b>	<b>95% CI</b>	
Age	In their 20s				
	In their 30s	0.004	0.040	-0.076	0.083
	In their 40s or older	0.021	0.051	-0.080	0.121
Academic Background	High school graduate				
	College graduate	0.084	0.053	-0.021	0.189
	M.A. or higher	0.109	0.095	-0.078	0.297
Average Monthly Wage	Less than KRW 1.5 million				
	KRW 1.5-1.99 million	0.062	0.040	-0.017	0.142
	KRW 2 million or more	0.104	0.054	-0.002	0.210
Total Years of Experience	Less than 5 years				
	5 years or more	-0.091	0.039	-0.169	-0.014
Average Work Hours	Less than 40 hours				
	41-48 hours	-0.016	0.032	-0.080	0.047
	49 hours or more	0.081	0.052	-0.021	0.184
Location	Seoul/ Gyeonggi-do				
	Other areas	-0.033	0.032	-0.097	0.031
Size of Medical Organization	Dental clinic				
	Dental hospital	-0.104	0.055	-0.212	0.004
No. of Unit Chairs	Less than 10ea				
	10-29ea	-0.007	0.033	-0.073	0.058
	30ea or more	0.175	0.078	0.022	0.328
	_cons	2.298	0.096	2.110	2.486

Table 4.13. Factors Affecting Job Satisfaction: Wage Characteristics

		<b>Coef.</b>	<b>SE</b>	<b>95% CI</b>	
	Wage based on seniority				
Base pay type	Wage based on job function	0.094	0.042	0.011	0.177
	Wage based on job capacity	0.079	0.056	-0.031	0.188
	Multiple choices applied	0.002	0.034	-0.064	0.068
Current extra payments (allowance)	N/A				
	1-2 payments	0.037	0.035	-0.032	0.107
	3 payments or more	0.034	0.036	-0.036	0.104
Current Bonus	N/A				
	1-2 bonuses	0.063	0.034	-0.005	0.131
	3 bonuses or more	0.077	0.051	-0.024	0.178
Pay Satisfaction	Pay System	0.050	0.036	-0.021	0.120
	Benefits	0.062	0.023	0.016	0.107
	Pay Level	0.057	0.024	0.010	0.104
	_cons	1.609	0.070	1.472	1.745

Table 4.14. Factors Affecting Job Satisfaction: General Characteristics and Wage Characteristics

		<b>Coef.</b>	<b>SE</b>	<b>95% CI</b>	
Age	In their 20s				
	In their 30s	-0.021	0.038	-0.096	0.054
	In their 40s or older	-0.054	0.048	-0.148	0.040
Wage	Less than KRW 1.5 million				
	KRW 1.5-1.99 million	0.031	0.037	-0.041	0.104
	KRW 2 million or more	0.082	0.049	-0.013	0.178
Total Years of Experience	Less than 5 years				
	5 years or more	-0.088	0.036	-0.160	-0.017
Average Work Hours	Less than 40 hours				
	41-48 hours	-0.024	0.029	-0.081	0.034
	49 hours or more	0.032	0.048	-0.063	0.127
No. of Unit Chairs	Less than 10ea				
	10-29ea	0.018	0.032	-0.044	0.080
	30ea or more	0.126	0.060	0.008	0.244
Base pay type	Wage based on seniority				
	Wage based on job function	0.078	0.045	-0.010	0.167
	Wage based on job capacity	0.098	0.056	-0.012	0.208
	Multiple choices applied	-0.009	0.037	-0.082	0.063
Current extra payments (allowance)	N/A				
	1-2 payments	0.036	0.039	-0.041	0.112
	3 payments or more	0.024	0.040	-0.055	0.102
Current Bonus	N/A				
	1-2 bonuses	0.053	0.038	-0.022	0.128
	3 bonuses or more	0.075	0.054	-0.031	0.181
Pay Satisfaction	Pay System	0.052	0.038	-0.023	0.126
	Benefits	0.058	0.024	0.010	0.106
	Pay Level	0.064	0.025	0.014	0.114
	_cons	1.696	0.091	1.515	1.876

**Table 4.15. Factors Affecting Pay & Job Satisfaction according to Number of Unit Chair**

		Pay Satisfaction								Job Satisfaction							
		No. of Unit Chair < 10				No. of Unit Chair ≥ 10				No. of Unit Chair < 10				No. of Unit Chair ≥ 10			
		Coef	SE	95% CI		Coef	SE	95% CI		Coef	SE	95% CI		Coef	SE	95% CI	
Age	In their 20s																
	In their 30s	0.035	0.123	-0.168	0.239	0.232	0.193	-0.090	0.554	-0.047	0.044	-0.120	0.027	0.075	0.077	-0.053	0.202
	In their 40s or older	0.369	0.142	0.135	0.603	-0.022	0.325	-0.564	0.519	-0.066	0.052	-0.151	0.020	0.120	0.129	-0.095	0.334
Wage	Less than KRW 1.5 million																
	KRW 1.5-1.99 million	0.025	0.132	-0.194	0.243	0.220	0.157	-0.042	0.481	0.074	0.047	-0.005	0.152	-0.051	0.063	-0.157	0.054
	KRW 2 million or more	0.168	0.160	-0.096	0.432	0.040	0.249	-0.374	0.454	0.112	0.058	0.015	0.208	0.007	0.100	-0.159	0.174
Total Years of Experience	Less than 5 years																
	5 years or more	-0.136	0.118	-0.332	0.059	-0.187	0.180	-0.486	0.113	-0.086	0.042	-0.156	-0.016	-0.075	0.072	-0.195	0.045
Average Work Hours	Less than 40 hours																
	41-48 hours	0.119	0.101	-0.049	0.287	-0.224	0.139	-0.456	0.008	-0.035	0.037	-0.095	0.025	-0.020	0.058	-0.116	0.076
	49 hours or more	0.351	0.168	0.072	0.629	0.126	0.210	-0.223	0.475	0.049	0.061	-0.052	0.151	-0.043	0.083	-0.181	0.095
Base pay type	Wage based on seniority																
	Wage based on job function	0.182	0.148	-0.063	0.427	0.473	0.221	0.105	0.840	0.081	0.053	-0.007	0.169	-0.004	0.089	-0.152	0.144
	Wage based on job capacity	0.099	0.170	-0.182	0.380	-0.453	0.350	-1.036	0.131	0.125	0.061	0.025	0.226	-0.107	0.143	-0.345	0.131
	Multiple choices applied	0.061	0.136	-0.164	0.286	-0.118	0.147	-0.362	0.126	0.037	0.049	-0.043	0.117	-0.065	0.058	-0.162	0.032



**Table 4.15. Factors Affecting Pay & Job Satisfaction according to Number of Unit Chair(continued)**

		Pay Satisfaction								Job Satisfaction							
		No. of Unit Chair <10				No. of Unit Chair >=10				No. of Unit Chair <10				No. of Unit Chair >=10			
		Coef	SE	95% CI		Coef	SE	95% CI		Coef	SE	95% CI		Coef	SE	95% CI	
Current extra payments (allowance)	N/A																
	1-2 payments	-0.122	0.118	-0.317	0.073	-0.037	0.237	-0.431	0.358	0.057	0.042	-0.013	0.127	-0.131	0.093	-0.286	0.024
	3 payments or more	-0.104	0.132	-0.323	0.115	0.056	0.220	-0.310	0.422	0.035	0.047	-0.044	0.114	-0.104	0.086	-0.248	0.040
Current Bonus	N/A																
	1-2 bonuses	0.071	0.133	-0.149	0.290	0.267	0.182	-0.036	0.570	0.064	0.048	-0.015	0.143	0.068	0.073	-0.053	0.189
	3 bonuses or more	0.200	0.203	-0.136	0.536	0.415	0.229	0.035	0.796	0.135	0.073	0.013	0.256	-0.006	0.092	-0.160	0.148
Pay Satisfaction	Pay System									0.046	0.051	-0.039	0.131	0.075	0.065	-0.033	0.183
	Benefits									0.035	0.033	-0.019	0.090	0.118	0.042	0.048	0.188
	Pay Level									0.081	0.030	0.031	0.131	0.034	0.047	-0.044	0.112
	_cons	2.749	0.206	2.408	3.090	2.506	0.336	1.946	3.065	1.667	0.112	1.482	1.852	1.774	0.173	1.487	2.062

## CHAPTER 5

### DISCUSSION

Korean medical institutions have long served as nonprofit organizations. The market situation, however, is changing: competition among medical centers is becoming fiercer and the demand for better medical services from patients is rising. Under the circumstances, medical institutions strive to raise management efficiency through management innovation externally, and to nurture a sound organizational culture and creative atmosphere internally. Dental clinics are no exception. They keep finding a way to survive in the midst of ever-fiercer competition. This study is intended to investigate the current state of the wage system in dental clinics by surveying their members, and take a look at the factors that have an effect on both the levels of pay satisfaction and job satisfaction. The outcome of this study will provide a basis to introduce a reasonable wage system that reflects the characteristics of dental clinics and secure competitiveness, and ultimately, to offer a decent dental care service based on the pay/job satisfaction of internal customers (i.e. employees).

This study first reviewed the wage types of dental clinics and found that, as the current wage type, “wage based on seniority” topped the list at 66.39% (multiple responses were allowed), and followed by “wage based on job function (18.21%)” and “wages on job capacity (15.41%).” As a preferred wage type, they also picked “wage based on seniority (39.67%)” that decides on the wages based on human factors including an employment period and academic background (salary-step system); “wages on job

capacity” that determines wages by evaluating an individual job performance was the next at 43.85%. In the case of dental clinics, most of them are operated by a handful of members such as one dentist and 5 (or less) dental hygienists, which makes it harder to put a proper wage system in place. This result supports the conclusion of existing studies that small-sized clinics adopted a wage based on seniority, while bigger ones preferred a wage system on job function (Jeong-hwa Kim et al., 1997). According to conventional studies, the merit system introduced as a corporate wage system, ageing society, and employment issues have made corporations move away from wages based on seniority and towards merit-based wage that reflects job functions and the achievements of workers (Il-gyu Park, 1996; Goo-chang Yoo, 2014; Young-hwan Choi, 2001). Unlike other industries, however, most medical service institutions have not taken one step forward from the conventional wage system based on seniority. Even if some institutions have implemented wages based on job functions, it was only for doctors; most of those attempts were not based on a systemic job analysis, thus making the operation of the new wage system very restricted (Hee-ok Par, 2006; Ik-je Seong, 1987). Of course, few companies maintain a tilted base pay type in reality (Goo-chang Yoo, 2014). The wage system centering on the human’s individual characteristics, job functions, and abilities have both advantages and disadvantages. Thus, in order to reflect the required value of personnel management according to types and sizes of dental clinics and to efficiently manage human resources, a balanced base pay management system shall be set up in consideration of the characteristics of each and a corresponding effort should be put into guaranteeing a settlement of such a system.

This study checked to see whether extra payments, bonuses, and severance pay

are offered on top of a base salary, and found that 51.16% and 54.03% of respondents said YES for extra payments and bonuses respectively. In the case of severance pay, 93.67% said YES. To be more specific, the extra payments one currently receives and the extra payments one prefers were compared; the extra payments they receive currently included meal (food) allowance (61.64%), overtime pay (47.41%), vacation pay (31.03%), and the extra payments they prefer turned out to be commuting pay (30.85%), physical training allowance (20.92%). In the case of the bonus, the bonus they currently receive included a national holiday bonus and a goal-achievement bonus, but the bonuses they want to receive were a regular bonus, year-end bonus, and quarterly bonus. The fact that they preferred a physical training allowance indicates a changed value of modern people who attach great importance to the quality of life; the surveys in the past showed most workers prefer an allowance related to the basic necessities such as food, clothes, and shelter.

It was also revealed that they prefer a regular bonus, rather than a special-purpose one as they want to pursue a stable and comfortable lifestyle. Benefits mean that every type of cash and wage in kind, other than the actual wage, are provided to advance the standard of living of the employees and their families. The logic of assuring benefits for employees shall be considered in parallel with the logic of wage provision and reviewed at the organizational (collective) level (Hae-jon Lee, 1989). Accordingly, benefits shall not be understood and offered as a benevolent charity, but as a way to proactively reproduce human resources, to form a proper human relationship (through the stabilization of a livelihood or physiological satisfaction), and to establish smooth collaborative relationships in an organization.

Multiple regression analysis was conducted including variables such as Model 1, Model 2, and Model 3 in order to check on the factors affecting the PSQ. An analysis of Model 1 showed age, monthly (average) salary, total years of experience, average work hours a week, and the number of unit chairs have a statistically-meaningful effect on the PSQ. In the case of Model 2, pay satisfaction was higher in the case where the system of the “wage based on job function” was adopted and there was extra pay or a bonus. Based on the comprehensive analysis that considered every variable from Model 1 and Model 2, a difference was found from that of Model 1 and Model 2; the impact of the wage system on pay satisfaction, which was obtained after correcting the social demographic characteristics of subjects and other factors, had a significant and greater effect only on base pay (except for extra pay and bonus). That means, if the base pay is based on job function, rather than seniority, their pay satisfaction was 0.278 points higher (0.023 point up after correcting the social demographic characteristics of subjects). The wage system (wage payment type) is one of the major factors for perceiving the equity of wages. It is true that the job efficiency and fair pay are the two biggest challenges in wage administration facing medical institutions, but their concerns cannot be as serious as those of other organizations (Ik-je Seong & Ik-wa Kim, 1991; Sang-jin Hong & Han-joong Kim, 1998); this has been demonstrated in conventional studies that showed the base pay accounts for more than 80% of an average income in medical organizations (Jeong-hwa Kim et al, 1997; Ik-je Seong & Ik-wa Kim, 1991). Traditionally, the wage system of the medical institutions has been based on seniority. Such a system can be suitable when the labor turnover is low (socially), the gap in the level of job difficulty is slight, and job placement is easy. However, it is generally considered that the wage based on seniority is

less effective in motivating workers, causes passive attitudes of workers, and makes the link between capability for the job and the job weak. This study also confirmed that people receiving pay based on job function are more satisfied with their pay than those receiving seniority-based wages. With the conventional seniority-based wage system, the livelihood of workers can be secured, but satisfying workers by paying them according to their job performance is impossible (Il-gyu Park, 1996). Therefore, in order to respond to the needs of the staff of dental clinics and to pursue a sustainable growth, a more reasonable wage system shall be introduced, in consideration of the characteristics and actual state of those dental clinics; a wage system shall be restructured to value job functions and capacity achievement, rather than the conventional seniority system (consisting of human factors). To that end, precise job analysis shall be made to decide on the job units and prepare a job statement per job unit. The relative values of jobs shall be evaluated and the corresponding values shall be decided in advance.

Multiple regression analysis was conducted including variables such as Model 1, Model 2, and Model 3 (sub criteria of pay satisfaction) in order to check on the factors affecting job satisfaction. In Model 1, the total years of experience and the number of unit chairs had a significant effect on job satisfaction, and in Model 2, the base pay type, benefits, and pay level had a significant effect. In Model 3 which considers the variables from Model 1 and Model 2 at the same time, the total years of experience, the number of unit chairs, benefits, and overall pay level had an effect; the amount of the effect in Model 3 was different from Model 1 and Model 2. In order to confirm the difference according to the size of the dental institution, factors affecting the pay satisfaction and job satisfaction were divided into number of dental unit chair. There was no big difference in

pay satisfaction and Job satisfaction of employee by the size of dental institution in the analysis.

Personal job satisfaction is related with the performance of an organization. Only when the workers are rewarded in an appropriate manner, will the organization be able to make an achievement. Like other studies on the staff of health/medical organizations (Yoon-hyeon Lee, 2007; Seo-young Kim & Gyu-young Lee, 2013), this study focused on wages based on job functions, rather than the seniority-based wage, and could confirm job satisfaction is improved when the “wage is based on job function” was applied. The job satisfaction, however, went down by -0.088 points in the group who worked for 5 years or more (compared to those who worked for less than 5 years). This was probably caused by the characteristics of small-sized dental clinics; conventional studies stated that the bigger the medical organization is, the better the wage system that is put in place (Jeong-hwa Kim et al., 1997; Ik-je Seong & Ik-hwa Kim, 1991; Seon-ik Jang et al., 2006; Sang-jin Hong & Han-joon Kim, 1998). This was also found in this study as well. In reality, it is hard for small-sized dental clinics to put a proper wage system in place, and they do not have the manpower to identify their pay level based on the accurate understanding on the wage system, resulting in there being no progress from the traditional seniority-based wage system. As they work longer, their expectations grow as well. Without an appropriate wage system in place, however, the gap between the rewards they think they deserve and actual rewards is likely to occur. Such a gap is one of the causes in declining pay/job satisfaction (Hoppock, 1935; Igalens & Roussel, 1999; J. K. Kim, 2007). This trend can also be seen in the data of job satisfaction depending on the number of unit chairs. A dental organization can be considered either a clinic or a

hospital, largely depending on the number of unit chairs (key equipment for dental treatment), rather than the establishment types. Thus, a large number of unit chairs means the organization is relatively bigger and its system is in place as a whole (meaning their job satisfaction is higher). Among the sub criteria of pay satisfaction, benefits and the overall pay level had a meaningful effect, similar to the existing studies that confirmed the factors affecting job satisfaction in medical organizations (Yoon-hyeon Lee, 2007; Soo-gyung Goh, 1999; Seo-young Kim & Gyu-young Lee, 2013; Young-myun Lee, 2008; Young-a Yim et al., 2012; Sun-ik Jang et al., 2006).

This study was conducted aiming at i) securing the competitiveness of small-sized medical clinics facing fierce competition in the medical management environment, ii) providing basic data required to draw up a plan to raise pay/job satisfaction, ultimately for higher-quality dental care services. The significance of this study is that it reviewed, in detail, the wage system of dental clinics, which was not dealt with in conventional studies. Additionally, this study tried to i) secure a proper number of samples in the course of the survey to identify the sub criteria of pay satisfaction, ii) include various factors and make multifaceted efforts for identifying factors that affect both pay satisfaction and job satisfaction, which is another distinctive point of this study. Despite such efforts, this study has limitations in that it failed to be based on sample framework, but instead relied on random sampling. And, as self-administered questionnaires were used for the survey, the result value could be biased as the subjects do not have an in-depth understanding on the conventional wage system or particular job.

Through the study so far, it was found that most of the dental clinics in operation are small and medium sized, making them less interested in establishing an official wage



management system; most of them focus only on the wage level of their employees to increase their wage satisfaction. In order to boost the wage and job satisfaction of those working in dental clinics and thereby to make them provide quality medical services to patients, their wage satisfaction should be achieved first. Conventional approach to the wage satisfaction was by driving up the wage level as the employees used to be concerned mainly about the necessities of life such as food, clothing, and shelter. Now, it is a different story; the changed values of modern people who want to pursue a more stable and comfortable life, unlike the past, should be reflected. That is why paying attention to the wage management system is required. As shown in the results of this study, it is necessary to review other types of wage payment methods (e.g. wages based on job function or wages based on job evaluation), rather than the existing basic salary system. Even in the allowances and bonuses, the types and characteristics of dental clinics can be reflected. In effect, continuous efforts should be made to manifest the value pursued by the organizations through the wage system. This approach requires not only efforts by individual dental clinics but also a move by the dental community as a whole. In other words, intervention and attention from the Korean Dental Association will be needed for a systematic job analysis that must be preceded for an efficient human resource management.

## REFERENCES

- Adams equity theory - workplace motivational theory - how individuals measure inputs and outcomes in relation to market norms and “referents.” (n.d.). Retrieved June 14, 2016, from <http://www.businessballs.com/adamsequitytheory.htm>
- Betty, R., & Schiner, C. (1981). *Personal administration: an experimental skill building approach*. New York: Addison-Wesley.
- Carraher, S. M. (1991). A Validity Study of the Pay Satisfaction Questionnaire (PSQ). *Educational and Psychological Measurement*, 51(2), 491–495.  
<http://doi.org/10.1177/0013164491512024>
- Carraher, S. M., & Buckley, M. R. (1996). Cognitive complexity and the perceived dimensionality of pay satisfaction. *Journal of Applied Psychology*, 81(1), 102–109. <http://doi.org/10.1037/0021-9010.81.1.102>
- Chang, B., Hong, S. S., Kim, J. Y., Jeong, S. H., & Song, K. B. (2004). Job Satisfaction of the Nurse Aides engaged in the Private Dental Clinic. *KDA Journal*, 42(10), 717–725.
- Currall, S., Towler, A., Judge, T., & Kohn, L. (2005). Pay satisfaction and organizational outcomes. *Personnel Psychology*, 58, 613–640.
- Folger, R., & Cropanzano, R. (1998). *Organizational Justice and Human Resource Management* | SAGE Publications Ltd. London. Retrieved from <https://uk.sagepub.com/en-gb/asi/organizational-justice-and-human-resource-management/book5737>
- Frederick herzberg motivational theory, motivators and hygiene factors, free herzberg diagrams. (n.d.). Retrieved June 14, 2016, from <http://www.businessballs.com/herzberg.htm>
- Hee, J., Yeon, J., Health, J., & Information, C. (2012). A Path Analysis of Variables Influencing Turnover.

- Heneman, H., & Schwab, D. (1985). Pay satisfaction: Its multidimensional nature and measurement. *International Journal of Psychology*, 20(2), 129–141.  
<http://doi.org/10.1080/00207598508247727>
- Heneman, R. L., Greenberger, D. B., & STEPHEN, S. (1988). THE RELATIONSHIP BETWEEN PAY-FOR-PERFORMANCE PERCEPTIONS AND PAY SATISFACTION. *Personnel Psychology*, 41(4), 745–759.  
<http://doi.org/10.1111/j.1744-6570.1988.tb00651.x>
- Heskett, J. L., Jones, T. O., Loveman, G. W., & Sasser, Jr, W. E. Schlesinger, L. A. (1994). Putting the service-profit chain to work. *Harvard Business Review*, 72(2), 164–174.
- Hoppock, R. (1935). *Job satisfaction*. New York: Harper and Brother.
- House, R., & Wigdor, L. (1967). Herzberg's dual-factor theory of job satisfaction and motivation: a review of the evidence and a criticism. *Personnel Psychology*, 20(4), 396–390.
- Igalens, J., & Roussel, P. (1999). A study of the relationship between compensation package, work motivation and job satisfaction. *Journal of Organizational Behavior*, 20(7), 1003–1025. [http://doi.org/10.1002/\(SICI\)1099-1379\(199912\)20:7<1003::AID-JOB941>3.3.CO;2-B](http://doi.org/10.1002/(SICI)1099-1379(199912)20:7<1003::AID-JOB941>3.3.CO;2-B)
- Jeong, S., Choi, E., & Choi, J. (2014). The effects of emotional labor on burnout , turnover intention , and job satisfaction among clinical dental hygienists. *Korea Oral Health Academic Journal*, 38(1), 50–58.
- Judge, T. a., & Welbourne, T. M. (1994). A confirmatory investigation of the dimensionality of the Pay Satisfaction Questionnaire. *Journal of Applied Psychology*, 79(3), 461–466. <http://doi.org/10.1037/0021-9010.79.3.461>
- Kim, J. K. (2007). Job Satisfaction and Patient Satisfaction Related to Nurse Staffing. *Journal of Korean Academy of Nursing Administration*, 13(1), 98–108.  
 Retrieved from <http://www.riss.kr/link?id=A60068450>
- Kim, J., Kim, H., Yum, J., & Co, K. (2014). DISC Behavioral Patterns, 8(2), 127–137.

- Lawler, E. E., & Suttle, J. L. (1973). Expectancy theory and job behavior. *Organizational Behavior and Human Performance*, 9(3), 482–503. [http://doi.org/10.1016/0030-5073\(73\)90066-4](http://doi.org/10.1016/0030-5073(73)90066-4)
- Lee, J. (2015). Relationship between Organizational Citizenship Behavior and Level of Service on Pay Satisfaction for Employees at Small and Medium Sized Hospitals with an Annual Salary System Introduced, 9(3), 1–11.
- Lee, Y. (2000). An Assessment Study on the Validity of Pay Satisfaction Measurement. *Industrial Accounting Research*, 10(1), 85–103.
- Lee, Y. (2007). Analysis of the Factors for Hospital Workers' Job Satisfaction.
- Locke, E. (1976). The nature and causes of job satisfaction. In M. Dunnette (Ed.), *Handbook of industrial and organizational behavior*. (pp. 1297–1349). Chicago: Rand Mc Nally.
- Locke, E. A. (1969). What is job satisfaction? *Organizational Behavior and Human Performance*, 4(4), 309–336. [http://doi.org/10.1016/0030-5073\(69\)90013-0](http://doi.org/10.1016/0030-5073(69)90013-0)
- Martins, H., & Proenca, T. (2012). Minnesota Satisfaction Questionnaire - psychometric properties and validation in a population of Portuguese hospital workers. *Economics and Management*, 471(October), 1–20.
- Maslow, A. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–396.
- Mathieu, J. E. (1991). A cross-level nonrecursive model of the antecedents of organizational commitment and satisfaction. *Journal of Applied Psychology*, 76, 607–618.
- Moorman, R. H. (1993). The Influence of Cognitive and Affective Based Job Satisfaction Measures on the Relationship Between Satisfaction and Organizational Citizenship Behavior. *Human Relations*, 46(6), 759–776. <http://doi.org/10.1177/001872679304600604>
- Mulvey, P., Miceli, M., & Near, J. (1992). The pay satisfaction questionnaire: a confirmatory factor analysis. *Journal of Social Psychology*, 132, 139–141.

- Orpen, C., & Bonnici, J. (1987). A Factor Analytic Investigation of the Pay Satisfaction Questionnaire. *The Journal of Social Psychology*, 127(4), 391–392. <http://doi.org/10.1080/00224545.1987.9713719>
- Park, B., & Shin, J. (2012). Relevance of role perceptions and job satisfaction of Hospital workers. *Korea Electronic Communication Society Academic Journal*, 7(5), 1197–1203.
- Porter, L. W., & Lawler, E. E. (1968). *Managerial attitude and performance*. Homewood: Irwin.
- Scarpello, V., Huber, V., & Vandenberg, R. J. (1988). Compensation satisfaction: Its measurement and dimensionality. *Journal of Applied Psychology*, 73(2), 163–171. <http://doi.org/10.1037/0021-9010.73.2.163>
- Schriesheim, C. A., Powers, K. J., Scandura, T. A., Gardiner, C. C., & Lankau, M. J. (1993). Improving Construct Measurement In Management Research: Comments and a Quantitative Approach for Assessing the Theoretical Content Adequacy of Paper-and-Pencil Survey-Type Instruments. *Journal of Management*, 19(2), 385–417. <http://doi.org/10.1177/014920639301900208>
- Tekleab, A. G., Takeuchi, R., & Taylor, M. S. (2005). Extending the chain of relationships among organizational justice, social exchange, and employee reactions: The role of contract violations. *Academy of Management Journal*, 48(1), 146–157. <http://doi.org/10.5465/AMJ.2005.15993162>
- Vandenberghe, C., & Tremblay, M. (2008). The Role of Pay Satisfaction and Organizational Commitment in Turnover Intentions: A Two-Sample Study. *J Bus Psychol*, 22, 275–286. Retrieved from [https://www.jstor.org/stable/30221766?seq=1#page\\_scan\\_tab\\_contents](https://www.jstor.org/stable/30221766?seq=1#page_scan_tab_contents)
- Weisman, C. S., & Nathanson, C. A. (1985). Professional satisfaction and client outcomes. A comparative organizational analysis. *Medical Care*, 23(10), 1179–92. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/4058072>
- Weiss, D., Dawis, R., England, G., & Lofquist, L. (1967). *Manual for the minnesota satisfaction questionnaire*. Minnesota.
- Yom, Y.-H., Kwon, S.-B., Lee, Y.-Y., Kwon, E.-K., & Ko, J.-W. (2009). The determinants of job satisfaction of nurses: focused on work rewards. *Journal of*

Korean Academy of Nursing, 39(3), 329–337.  
<http://doi.org/10.4040/jkan.2009.39.3.329>

Boon-wol Gang & Sun-mi Lee. (1998). A Study on the Job Satisfaction of Dental Hygienists- by place of work. *Dongnam Health Univ. Journal*, 16(2), 141–150.  
Retrieved from  
[http://www.riss.kr/search/detail/DetailView.do?p\\_mat\\_type=1a0202e37d52c72d&control\\_no=fd179fc02850b2d9ffe0bdc3ef48d419](http://www.riss.kr/search/detail/DetailView.do?p_mat_type=1a0202e37d52c72d&control_no=fd179fc02850b2d9ffe0bdc3ef48d419)

Soo-gyeong Goh. (1999). A study on the pay systems of the workers at hospitals in Korea. *Nursing Administration Journal*, 5(2), 281–295.

Hyun-cheol Goh. (2008). *Progress of Performance-Based Personnel Management*. SERI. Seoul.

Dong-sung Gwak & Gi-doo Gang. (1999). Study on the effect of internal service quality on staff satisfaction and customer satisfaction. *Korea Marketing Journal*, 1(4), 24–46.

Mi-hee Kim & Mi-young Jeong. (2012). Job Satisfaction and Influential Factors of Clinical Nurses. *Journal of East-West Nursing Research*, 18(2), 81–87.

Seo-young Kim & Gyu-young Lee. (2013). Analysis of the Factors for Hospital Workers' Job Satisfaction. *Korea Management Journal*, 26(1), 21–40.

Seung-mook Kim. (2005). The Study of the previous factor and effectiveness of an annual salary wage system. *Gyeongju Univ. Journal*, 18(1), 329–346.

Jeong-hwa Kim, Joon-han Park, & Gi-ho Lee. (1997). Wage Structure in Hospitals. *Hospital Management Journal*, 2(1), 162–182.

Tae-sung Kim & Chan-young Heo. (2012). An Effect of the Emotional Labor on the Burnout and the Job Satisfaction. *Korea Management Journal*, 25(9), 3761–3780.

Hye-young Kim, Jung-ok Choi, & Mi-gyoung Sung. (2012). The effect of self-efficacy and job satisfaction of Dental Hygienists' on the organizational commitment and turnover intention. *Korea Dental Hygiene Journal*, 12(1), 213–223.  
<http://doi.org/10.1017/CBO9781107415324.004>

- Moo-gi Moon, Moon-hee Yoon, Cheol-soo Lee, & Eun-jeong Park. (2006). Wage Structure Reform: Challenge for Labor Laws. Seoul.
- Seong-ae Park & Soon-nyung Yoon. (1992). Development of Job Satisfaction Measures. *Nursing Academic Journal*, 22(3), 316–324.
- Woo-seong Park. (2006). Skill-based pay in Yuhan Kimberly. *Management Training Research*, 9(2), 21–44.
- Il-gyu Park. (1996). A Study on the Improvement Plan for the Korean Wage System. *Social Science Journal*, 13, 45–63. Retrieved from [http://fb.riss.kr/search/detail/DetailView.do?p\\_mat\\_type=1a0202e37d52c72d&control\\_no=e58b9ba4684d97c6ffe0bdc3ef48d419#redirect](http://fb.riss.kr/search/detail/DetailView.do?p_mat_type=1a0202e37d52c72d&control_no=e58b9ba4684d97c6ffe0bdc3ef48d419#redirect)
- Joon-sung Park & Wha-il Kim. (2008). Study on the historic Change of Pay Structure in Korean Companies. *Personnel Management Research*, 32(3), 1–37.
- Hee-ok Park. (2006). An Analysis of the Pay System and Pay Form of Hospital Nurses Purpose. *Nursing Administration Journal*, 12(4), 521–522.
- Mi-ran Bae, Jin-wha Jeon, & Jeong-hwa Lee. (2013). Analysis of the Selection Criteria of Consumers for Dental Clinics. *Korean Content Journal*, 13(3), 271–277.
- Ik-je Seong. (1987). Status and Improvement of the Clinic Wage System. *Korea Hospital Association Journal*, 16(6), 21–31.
- Ik-je Seong & Ik-wha Kim. (1991). Current status and development direction of the hospital wage system.pdf. *Korea Hospital Association Journal*, 20(5), 4–14.
- Dea-geun Song. (2007). Analysis of job satisfaction for a Dental University Hospital factor of dissatisfaction. Graduate School of Seoul Univ. (Dental College).
- Gyeong-soo Shin. (2005). Analysis on the wage gap among different medical professions. *Health and Welfare Forum*, 25(2), 100–103.
- Seung-gook Shine & Jong-gil Kim. (1997). Study on organization culture and the attitude of accepting the wage system. *Young-in Univ. Journal*, 183–5.

- Soo-hyung Sim & Young-joon Sea. (2008). Determinants of Occupational Commitment of Dental Hygienists. *Hospital Management Journal* , 13(1), 84–102.
- Gye-taek Oh. (2016). Issues and challenges related to the wage and job. *Monthly Labor Review*, 1, 82–88.
- Goo-chang Yoo. (2014). Korean companies' wage system: Is the "wage based on job function" an alternative? *Monthly Labor Review* 2, 37–54.
- Sun Lee. (1997). Current status and challenge of the wage system. Seoul. Retrieved from [https://books.google.co.kr/books/about/%EC%9E%84%EA%B8%88\\_%EC%A0%9C%EB%8F%84\\_%EC%9D%98\\_%ED%98%84%ED%99%A9\\_%EA%B3%BC\\_%EA%B3%BC%EC%A0%9C.html?id=Lq9VPwAACAAJ&pgis=1](https://books.google.co.kr/books/about/%EC%9E%84%EA%B8%88_%EC%A0%9C%EB%8F%84_%EC%9D%98_%ED%98%84%ED%99%A9_%EA%B3%BC_%EA%B3%BC%EC%A0%9C.html?id=Lq9VPwAACAAJ&pgis=1)
- Young-myun Lee. (2008). Facet-Based And Facet-Only Job Satisfaction Measures In Korea. *HR Administration Journal*, 15(4), 147–185.
- Hae-jong Lee. (1989). Considerations on the hospital wage system and structure. *Hospital Association Journal*, 18(5), 7–15.
- Young-a Yim, Gun-youb Kim, & Se-mook Choi. (2012). Factors Affecting Job Satisfaction, Organizational Attachment and Job Leaving Attitude of General Hospital Employees by Job Category. *Korea Industrial-Academy Technology Journal*, 13(8), 3586–3596.
- Seok-in Jang. (2011). A comparative study on job-based pay systems of German and American subsidiaries in Korea. *Korea-German Social Science Journal*, 21(4), 231–266.
- Seon-ik Jang, Gi-hyo Lee, & Won-joong Kim. (2006). Influence of Job Characteristics and the Preferred Pay System of Hospital Employees on Pay Satisfaction. *Health and Welfare*, 8, 25–46. Retrieved from <http://www.dbpia.co.kr/Article/NODE00826793>
- So-yeon Jeon. (2002). Comparative research of job satisfaction for a hygienist who works from a local to small hospital. *Kyunghee Univ. (Graduate School)*
- Yong-hwan Choi. (2001) A Case study on the Development of Merit Rating Index Following the Introduction Annual Salary System for Hospital Personnel :



Focused on the Small-and medium-sized hospitals. Wonkwang University  
(Health/Environment Graduate School)

Chan-young Heo. (2001). Current status and challenge of wage system. Seoul.

Sang-jin Hong & Han-joong Kim. (1998). An analysis of direct financial compensation of hospital personnel in Korea. Health Administration Journal, 8(1), 15–51.

Hyun-sil Hong, Yeon-hee Choi, Young-gun Ji, Sang-gyu Lee, & Ho-jang Gwon. (2006). The effects of the service quality of the dental hygienist on patients` satisfaction and their intentions to revisit and recommend of dental care services. Korea Oral Health Journal, 30(2), 130–140.

## APPENDIX A

### A SURVEY QUESTIONNAIRE FOR DENTAL CLINICS EMPLOYERS

#### **A Survey of Job Satisfaction and Compensation among Dental Hospital Workers**

We hope your continuous success.

This survey is designed to explore the improvement plan for satisfaction on job and compensation, by investigating dental hospital workers' duties, work environment and compensation.

The purposes of this survey are:

- 1. To investigate the job satisfaction among dental hospital workers**
- 2. To investigate satisfaction on compensation among dental hospital workers**

The reply you're going to make will be used as a valuable and irreplaceable data, and it will never be used in a purpose other than research. Thank you for your time and participation in advance.

**January 2015**

Supervisor : Shin, Ho Seong (Wonkwang University School of Dentistry,  
Department of Social and Humanity in Dentistry)

Student : Kim, Eui Jeong (DrPH Candidate, Department of Health Services  
Policy and Management, University of South Carolina)

sarangdc@naver.com

Tel. 010-6223-5146, 063) 850-6915

**Part I General Information**( ※ Answer to the following questions appropriately.)

1. Gender

- ① Male            ② Female

2. Age

(Born in 19\_)

3. Marital Status

- ① Single            ② Married            ③ Separated/Divorced/Widow(er)

4. Highest Educational Attainment

- ① Bachelor's Degree            ② Master's Degree            ③ Doctor's Degree

5. Specialist

- ① Yes, I am.    ② No, I'm not.

5 - (1) If yes, what is your professional field?

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6. Location of your organization

(Metropolitan City/Province) / (City/County)

7. Type of your organization

- ① Dental clinic    ② Dental Hospital    ③ Hospital    ④ University Hospital    ⑤ General Hospital  
⑥ Public Organization(Health Care Center)    ⑦ Other

8. Pay Period

- ① Annual      ② Monthly      ③ Other

9. Total Number of Employees

- ① Less than 5    ② 5 to 9                      ③ 10 to 14      ④ 15 to 19      ⑤ 20 to 29  
⑥ 30 to 49      ⑦ 50 or more

10. Time passed since your first practice

- ① Less than 6 months    ② 6 months - under 1 year    ③ 1 year – under 3 years    ④ 3 years – under 5 years  
⑤ 5 years – under 10 years    ⑥ 10 years – under 20 years    ⑦ 20 years – under 30 years    ⑧ 30 years or more

11. Time passed since the organization was established

- ① Less than 6 months    ② 6 months - under 1 year    ③ 1 year – under 3 years    ④ 3 years – under 5 years  
⑤ 5 years – under 10 years    ⑥ 10 years – under 20 years    ⑦ 20 years – under 30 years    ⑧ 30 years or more

12. Average of your Weekly Working Hours

- ① Less than 40    ② 41 to 45                      ③ 46 to 48                      ④ 49 to 54  
⑤ 55 to 59      ⑥ 60 or more

13. Work on Holiday/Nighttime

- ① None of the two    ② Work on Nighttime    ③ Work on Holiday    ④ Both

14. Average hour of Weekly Training Session (ex: Meeting, Education Etc.)

- ① Less than 30 minutes                      ② 30 minutes – under 1 hour  
③ 1 hour – under an hour and a half    ④ An hour and a half – under 2 hours  
⑤ 2 hours – under 2 hours and a half    ⑥ 2 hours and a half – under 3 hours  
⑦ 3 hours or more

15. Number of Unit Chairs

- ① Less than 3      ② 3 to 4      ③ 5 to 9      ④ 10 to 14  
⑤ 15 to 29      ⑥ 30 to 49      ⑦ 50 or more

16. Choose the items that best describe 'Basic Pay Structure of your organization' & 'Basic Pay Structure you prefer' (Multiple Selection Available)

Current Preference

- Seniority-Based** : Wage is based on '**Personal issues**' such as Service Period, Educational Attainment(ex. wage being higher than a less experienced worker with same job).

- Job function-Based** : Wage is based on '**The work assigned**'(ex. wage being assessed after the evaluation of the value of the work is completed).

- Wage on Job Evaluation** : Wage is based on '**The proficiency towards the work**'(ex. incentives including personal/team)

17. Does your organization pay fringe benefits(Related to the Question 18)?

- ① Yes      ② No

18. Look at the following items and answer the questions below

- ① Additional individual      ② Additional group work      ③ Duty/Position/Job

task

- |                              |                            |                        |
|------------------------------|----------------------------|------------------------|
| ④ Qualification/License      | ⑤ Annual and monthly leave | ⑥ Family support       |
| ⑦ Meals                      | ⑧ Transport                | ⑨ Social insurance     |
| ⑩ Extra duties               | ⑪ Overtime                 | ⑫ Temporary service    |
| ⑬ Vacation                   | ⑭ Long-service bonus       | ⑮ Menstrual leave      |
| ⑯ Treatment support/Research | ⑰ Charge of accounts       | ⑱ Special service/Risk |
| ⑲ Special work               | ⑳ Health allowance         | ㉑ Other                |

18 – (1) Choose all the fringe benefits your organization pays.

18 - (2) Choose 3 fringe benefits you would like to pay most in order.

1st 2nd 3rd

19. Does your organization pay bonuses (Related to the Question 20)?

- ① Yes      ② No

20. Look at the following items and answer the questions below

- |                |            |                     |
|----------------|------------|---------------------|
| ① Periodic     | ② Year-end | ③ Quarter(seasonal) |
| ④ Bereavement  | ⑤ Holiday  | ⑥ Allowance at risk |
| ⑦ Inauguration | ⑧ Other    |                     |

20 - (1) Choose all the bonuses your organization pays.

20 - (2) Choose 3 bonuses you would like to pay most in order.

1st 2nd 3rd

21. Does your organization pay severance pay as the law instructed to pay?

- ① Yes                      ② No

- We are grateful for your effort. Thank you for your attention. -

## APPENDIX B

### A SURVEY QUESTIONNAIRE FOR DENTAL CLINICS EMPLOYEES

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#### **A Survey of Job Satisfaction and Compensation among Dental Hospital Workers**

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We hope your continuous success.

This survey is designed to explore the improvement plan for satisfaction on job and compensation, by investigating dental hospital workers' duties, work environment and compensation.

The purposes of this survey are:

- 1. To investigate the job satisfaction among dental hospital workers**
- 2. To investigate satisfaction on compensation among dental hospital workers**

The reply you're going to make will be used as a valuable and irreplaceable data, and it will never be used in a purpose other than research. Thank you for your time and participation in advance.

**January 2015**

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**Part I General Information**( ※ Answer to the following questions appropriately.)

1. Gender

- ① Male      ② Female

2. Age

(Born in 19\_)

3. Marital Status

- ① Single      ② Married      ③ Separated/Divorced/Widow(er)

4. Highest Educational Attainment

- ① High School      ② Community College      ③ Bachelor's Degree      ④ Master's Degree      ⑤ Doctor's Degree

5. Location of your Workplace

(Metropolitan City/Province) / (City/County)

6. Your Workplace

- ① Dental clinic      ② Dental Hospital      ③ Hospital      ④ University Hospital      ⑤ General Hospital  
⑥ Public Organization(Health Care Center)      ⑦ Other

7. Job

- ① Dentist      ② Dental Hygienist      ③ Nurse      ④ Nurse's aide      ⑤ Pharmacist  
⑥ Dental Technician      ⑦ Office Worker

8. Annual Income

\_\_\_\_\_ten thousand Korean Won

9. Monthly Income(Korean Won(₩))

- ① Less than 1 million    ② 1 million – under 1.5 million    ③ 1.5 – under 2 million  
④ 2 million – under 3 million    ⑤ 3million – under 5 million    ⑥ 5million or more

10. Current Department (Multiple Selection Available)

- ① Treatment    ② Care Assistant(ex. radiation, dental technician etc.)    ③ Administration    ④ Other

11. Position in the Organization

- ① Team member    ② Team Leader    ③ Head of the Department    ④ Director    ⑤ Other

12. Type of Employment

- ① Regular Worker    ② Informal Worker    ③ Daily Worker    ④ Other

13. Total Number of Employees

- ① Less than 5    ② 5 to 9    ③ 10 to 14    ④ 15 to 19    ⑤ 20 to 29  
⑥ 30 to 49    ⑦ 50 or more

14. Your Whole Career

- ① Less than 6 months    ② 6 months – under 1 year    ③ 1 year – under 3 years    ④ 3 years – under 5 years  
⑤ 5 years – under 10 years    ⑥ 10 years – under 15 years    ⑦ 15 years or more

15. Working years on Current Organization

- ① Less than 3 months    ② 3 months - under 6 months    ③ 6 months – under 1 year    ④ 1 year – under 3 years  
⑤ 3 years – under 5 years    ⑥ 5 years – under 10 years    ⑦ 10 years – under 15 years    ⑧ 15 years or more

16. Average of your Weekly Working Hours

- ① Less than 40      ② 41 to 45      ③ 46 to 48      ④ 49 to 54  
⑤ 55 to 59      ⑥ 60 or more

17. Work on Holiday/Nighttime

- ① None of the two      ② Work on Nighttime      ③ Work on Holiday      ④ Both

18. Average hour of Weekly Training Session (ex: Meeting, Education Etc.)

- ① Less than 30 minutes      ② 30 minutes – under 1 hour  
③ 1 hour – under an hour and a half      ④ An hour and a half – under 2 hours  
⑤ 2 hours – under 2 hours and a half      ⑥ 2 hours and a half – under 3 hours  
⑦ 3 hours or more

19. Number of Unit Chairs

- ① Less than 3      ② 3 to 4      ③ 5 to 9      ④ 10 to 14  
⑤ 15 to 29      ⑥ 30 to 49      ⑦ 50 or more

20. Choose the items that best describe ‘Your Basic Pay Structure’ & ‘Basic Pay Structure which you prefer’ regarding your job and your workplace (Multiple Selection Available)

Current Preference

- Seniority-Based** : Wage is based on ‘Personal issues’ such as Service Period, Educational Attainment(ex. wage being higher than a less experienced worker with same job).

- Job function-Based** : Wage is based on ‘The work assigned’(ex. wage being assessed after the evaluation of the value of the work is completed).

- Wage on Job Evaluation** : Wage is based on ‘The proficiency towards the work’(ex. incentives including personal/team)

21. Do you receive fringe benefits(Related to the Question 22)?

- ① Yes            ② No            ③ Not so sure since they’re included in the annual-income

※ Look at the following items and answer the questions below

① Additional individual task	② Additional group work	③ Duty/Position/Job
④ Qualification/License	⑤ Annual and monthly leave	⑥ Family support
⑦ Meals	⑧ Transport	⑨ Social insurance
⑩ Extra duties	⑪ Overtime	⑫ Temporary service
⑬ Vacation	⑭ Long-service bonus	⑮ Menstrual leave
⑯ Treatment support/Research	⑰ Charge of accounts	⑱ Special service/Risk
⑲ Special work	⑳ Health allowance	㉑ Other

22 – (1) Choose all the fringe benefits you receive.

22 - (2) Choose 3 fringe benefits you would like to receive most in order.

1st 2nd 3rd

23. Do you receive bonuses(Related to the Question 24)?

① Yes            ② No            ③ Not so sure since they're included in the annual-income

※ **Look at the following items and answer the questions below**

- |                |            |                     |
|----------------|------------|---------------------|
| ① Periodic     | ② Year-end | ③ Quarter(seasonal) |
| ④ Bereavement  | ⑤ Holiday  | ⑥ Bonus at risk     |
| ⑦ Inauguration | ⑧ Other    |                     |

24 - (1) Choose all the bonuses you receive.

24 - (2) Choose 3 bonuses you would like to receive most in order.

1st 2nd 3rd

**25. Does your organization pay severance pay as the law instructed to pay?**

① Yes            ② No

**Part II Pay satisfaction (Pay Satisfaction Questionnaire)**

※ Decide how satisfied you feel about the aspect of your pay described by the statement

Questions	Very satisfied	satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very dissatisfied
1. My take-home pay	①	②	③	④	⑤
2. My benefit package	①	②	③	④	⑤
3. My most recent raise	①	②	③	④	⑤
4. Influence my supervisor has on my pay	①	②	③	④	⑤
5. My current salary	①	②	③	④	⑤
6. The amount the company pays towards my benefit	①	②	③	④	⑤
7. The raises I have typically received in the past	①	②	③	④	⑤
8. The company's pay structure	①	②	③	④	⑤
9. Information the company gives about pay issues of concern to me	①	②	③	④	⑤
10. My overall level of pay	①	②	③	④	⑤

Questions	Very satisfied	satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very dissatisfied
11. The value of my benefits	①	②	③	④	⑤

12. Pay of other jobs in the company	①	②	③	④	⑤
13. Consistency of the company's pay policies	①	②	③	④	⑤
14. The size of my current salary	①	②	③	④	⑤
15. The number of benefits I receive	①	②	③	④	⑤
16. How my raises are determined	①	②	③	④	⑤
17. Differences in pay among jobs in the company	①	②	③	④	⑤
18. How the company administers pay	①	②	③	④	⑤

### Part III Job satisfaction (Job Descriptive Index)

※ Decide how satisfied you feel about the aspect of your job described by the statement

Questions		Yes	I don't know	No
People on Your Present Job	1. Stimulating	①	②	③
	2. Boring	①	②	③
	3. Slow	①	②	③
	4. Helpful	①	②	③
	5. Stupid	①	②	③
	6. Responsible	①	②	③
	7. Likeable	①	②	③
	8. Intelligent	①	②	③
	9. Easy to make enemies	①	②	③
	10. Rude	①	②	③
	11. Smart	①	②	③
	12. Lazy	①	②	③
	13. Unpleasant	①	②	③
	14. Supportive	①	②	③
	15. Active	①	②	③
	16. Narrow interests	①	②	③
	17. Frustrating	①	②	③
	18. Stubborn	①	②	③
Work on Present Job	19. Fascinating	①	②	③
	20. Routine	①	②	③
	21. Satisfying	①	②	③
	22. Boring	①	②	③
	23. Good	①	②	③
	24. Gives sense of accomplishment	①	②	③
	25. Respected	①	②	③
	26. Exciting	①	②	③
	27. Rewarding	①	②	③
	28. Useful	①	②	③



	29. Challenging	①	②	③
	30. Simple	①	②	③
	31. Repetitive	①	②	③
	32. Creative	①	②	③
	33. Dull	①	②	③
	34. Uninteresting	①	②	③
	35. Can see results	①	②	③
	36. Use my abilities	①	②	③
Pay	37. Income adequate for normal expenses	①	②	③
	38. Fair	①	②	③
	39. Barely live on income	①	②	③
	40. Bad	①	②	③
	41. Comfortable	①	②	③
	42. Less than I deserve	①	②	③
	43. Well paid	①	②	③
	44. Enough to live on	①	②	③
	45. Underpaid	①	②	③
Opportunities for Promotion	46. Good opportunities for promotion	①	②	③
	47. Opportunities somewhat limited	①	②	③
	48. Promotion on ability	①	②	③
	49. Dead-end job	①	②	③
	50. Good chance for promotion	①	②	③
	51. Very limited	①	②	③
	52. Infrequent promotions	①	②	③
	53. Regular promotions	①	②	③
	54. Fairly good chance for promotion	①	②	③
Supervision	55. Supportive	①	②	③
	56. Hard to please	①	②	③
	57. Impolite	①	②	③
	58. Praises good work	①	②	③

59. Tactful	①	②	③
60. Influential	①	②	③
61. Up-to-date	①	②	③
62. Unkind	①	②	③
63. Has favorites	①	②	③
64. Tells me where I stand	①	②	③
65. Annoying	①	②	③
66. Stubborn	①	②	③
67. Knows job well	①	②	③
68. Bad	①	②	③
69. Intelligent	①	②	③
70. Poor planner	①	②	③
71. Around when needed	①	②	③
72. Lazy	①	②	③

- We are grateful for your effort. Thank you for your attention. -