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Master's Thesis of Public Administration

A Study on the Factors Affecting Job Satisfaction of Police Officers in 112 Emergency Dispatch Center

112종합상황실 경찰관의 직무만족에
영향을 주는 요인에 대한 연구

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A Study on the Factors Affecting Job Satisfaction of Police Officers in 112 Emergency Dispatch Center

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Abstract

A Study on the Factors Affecting Job Satisfaction of Police Officers in 112 Emergency Dispatch Center

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The purpose of this study is to identify the most important factors affecting job satisfaction of police officers in 112 emergency dispatch center, and to propose policy directions that can improve their job satisfaction.

Through a review of prior research on police officer job satisfaction, the factors of police officer job satisfaction were identified and classified into job stress factors, human relationship factors, work environment factors, and external environment factors. After that, they were divided into sub-elements. Job stress was classified into role conflict, role ambiguity, and role overload. Human relationship factors were composed of positive relations with boss, colleagues, and subordinates, and transformational leadership of immediate boss. The factors of work environment were divided into advantages to promotion, irrationality of discipline, satisfaction of pay, and satisfaction of welfare. Finally, external

environment factors consisted of citizens' trust and respect for 112 police, and critical attitude of the press for 112 police. Using these factors as independent variables, 11 hypotheses about the relationship with the dependent variable, job satisfaction, were constructed. To verify these, a questionnaire survey was conducted using the opportunity for police officers in 112 emergency dispatch centers to enter the Police Human Resources Development Institute for job training. From April to November 2019, 210 questionnaires were distributed, and 193 copies were used for the final analysis. STATA 14 was used as a statistical program for survey analysis.

As a result of the analysis, the most influential factor on the job satisfaction of police officers in 112 emergency dispatch center was satisfaction of pay, followed by role overload. The relationship between the remaining independent variables and the dependent variable was not statistically significant. Based on this, the following policy proposals are possible. First of all, it was confirmed that in order to increase the job satisfaction of 112 center police officers, a fair and sufficient compensation is needed for their work. In addition to the need to raise the basic salary of the police, which is set lower than that of other public security positions, it was proposed to increase the allowances of 112 center worker. Next, in order to relieve job stress caused by role overload, I suggested to allocate manpower based on the amount of work that can be processed per employee through the accurate and objective job analysis.

In this study, there were some limitations such as insufficient questionnaire items to measure each factor, insufficient number of samples, and failure to discover unique independent variables of 112 centers. Despite these limitations, this study is valuable as a study that directly deals with the factors affecting job

satisfaction of police officers in 112 emergency dispatch center, who have been alienated from police job satisfaction studies so far. Based on this study, I hope that the interest in 112 center workers will increase, and in-depth research will be conducted to improve their job satisfaction and treatment.

Keyword: 112 Emergency Dispatch Center, 112 Police Officer, Job Satisfaction, Satisfaction with Pay, Role Overload

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Table of Contents

Abstract	i
Table of Contents	iv
List of Table	viii
List of Figure	ix

Chapter 1. Introduction

1. 1. Background and Purpose of Study	1
1. 2. Scope and Method of Study	3
1. 2. 1. Scope of Study	3
1. 2. 2. Method of Study	4

Chapter 2. Discussion of Theory and Literature Review

2. 1. 112 Emergency Dispatch Center	6
2. 1. 1. Concept of 112 reporting system.	6
2. 1. 2. Main functions of 112 center and definition of 112 police officer	7
2. 1. 3. Organization of 112 center.....	8
2. 1. 4. Status of 112 center.....	10
2. 1. 5. Emerging importance of 112 center.....	12
2. 2. Job Satisfaction.....	17
2. 2. 1. Definition of Job Satisfaction.....	17
2. 2. 2. The importance of Job Satisfaction	20
2. 2. 3. Theories about factors affecting job satisfaction.....	21
2.2.3.1. Maslow's hierarchy of needs.....	22

2.2.3.2. Alderfer's E.R.G. theory	23
2.2.3.3. Herzberg's Two-factor theory	24
2.2.3.4. Interaction model.....	25
2. 3. Literature Review	26
2. 3. 1. Previous Studies on Job Satisfaction of Police officer	26
2. 3. 2. Previous Studies on Job Satisfaction of Police officer in 112 emergency dispatch center	28
2. 3. 3. Factors affecting job satisfaction of police officers in 112 emergency dispatch center.....	30
2.3.3.1. Job Stress factors.....	31
2.3.3.2. Human Relationship factors	32
2.3.3.3. Work Environment factors	34
2.3.3.4. External Environment factors	35
2. 3. 4. Differentiation of this study from previous studies	36

Chapter 3. Research Design and Method

3. 1. Research Model and Hypothesis	38
3. 1. 1. Research Model.....	38
3. 1. 2. Research Hypothesis	39
3. 2. Operational definition of variables	42
3. 2. 1. Dependant variable.....	42
3. 2. 2. Independent variables	42
3.2.2.1. Job Stress factors.....	42
3.2.2.2. Human Relationship factors	42

3.2.2.3. Work Environment factors	43
3.2.2.4. External Environment factors	43
3. 2. 3. Control variable	43
3. 3. Data Collection and Its Analysis.....	44
3. 3. 1. Data Collection.....	44
3. 3. 2. Data Analysis.....	47
3. 4. Measurement of variables	47

Chapter 4. Results and Discussions

4. 1. Respondent characteristics	53
4. 2. Descriptive statistics	58
4. 3. Comparative analysis by group	63
4. 3. 1. Gender and 112 job satisfaction	63
4. 3. 2. 112 total career and 112 job satisfaction	64
4. 3. 3. Rank and 112 job satisfaction	65
4. 3. 4. Size of 112 center and 112 job satisfaction.....	66
4. 4. Regression analysis	67
4. 4. 1. Hierarchical Regression analysis.....	67
4. 4. 2. Discussion.....	71
4.4.2.1. The meaning of hierarchical regression analysis result	71
4.4.2.2. Interview with the 112 center police officers..	73
4.4.2.3. Comparison of job satisfaction factors of private call centers and the results of this study	76
4.4.2.4. Question on the results of this regression analysis and suggestion for future research.....	80

4. 4. 3. Hypotheses test result	81
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Chapter 5. Conclusion

5. 1. Summary of Research results	84
5. 2. Policy suggestions and limitations	85
5. 2. 1. Policy suggestions.....	85
5.2.1.1. Increase the basic salary of the police and promote the 112 special allowance.....	86
5.2.1.2. Reasonable staffing to resolve role overload...	87
5.2.1.3. Resolution of role conflict	88
5. 2. 2. Limitations	89

Bibliography	92
--------------------	----

Appendix (Questionnaire)	103
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Abstract in Korean(국문초록).....	112
-------------------------------	-----

List of Table

Table 1. Total crimes and 5 major serious crimes.....	10
Table 2. Number of police officers working in 112 centers..	11
Table 3. Definition of Job Satisfaction (Foreign Scholars) ..	18
Table 4. Definition of Job Satisfaction (Korean Scholars) ..	19
Table 5. Comparison of Maslow and Alderfer	24
Table 6. Detailed hypotheses.....	40
Table 7. Training plan for workers of the 112 center	45
Table 8. Measurement indicator of variable	48
Table 9. Respondent characteristics	53
Table 10. Descriptive statistics	58
Table 11. Correlations between variables	61
Table 12. Gender and 112 job satisfaction	63
Table 13. 112 total career and 112 job satisfaction.	64
Table 14. Rank and 112 job satisfaction.	65
Table 15. Size of 112 center and 112 job satisfaction.	66
Table 16. Hierarchical regression analysis.....	69
Table 17. Characteristics of the interviewee.....	73
Table 18. Hypotheses test result.....	82

List of Figure

Figure 1. 112 Center Organization Chart	9
Figure 2. Organization chart of National Police Agency	14
Figure 3. Organization Reform	16
Figure 4. Analytical Framework	39

Chapter 1. Introduction

1.1. Background and Purpose of Study

Police act defines the national police's first duty as protection of people's lives, health and property^①. To carry out this precious duty successfully, the Korean National Police Agency operates the emergency call, 112 system (911 in US). When citizens are at risk, 112 Emergency Dispatch Center (hereinafter, it is often referred to as 112 center) is the first place they can contact. Therefore, responding quickly to emergency calls is the most basic mission of police. For this reason, previous studies on 112 have focused primarily on the improvement of the 112 system itself or the 112 police response. Looking at the published papers, a study on the 112 system of the police (Lim, 2006), a study on differential police response of 112 call service (Seok, 2008), policy evaluation and suggestions on the reform of 112 calls (Kim, 2010), improvement of the police response to 112 call service (Lee, 2013), a study on the 112 reporting system for enhancing the police

^① **Police Act (2018), Article 3 (Duties of National Police)**

The duties of the national police shall be as follows:

- 1. Protection of people's lives, health and property**
2. Prevention, suppression and investigation of crimes
- 2-2. Protection of victims of crimes
3. Performance of guard duty, security escort of very important persons, and counter-espionage and counter-terrorism operations
4. Collection, preparation, and distribution of information on public security
5. Traffic control and prevention of danger and injuries
6. International cooperation with foreign government agencies and international organizations
7. Other activities to maintain public peace and order

response to serious crime (Park, 2013), improving 112 calls for service: focusing on validity of input items (Roh & Tark, 2015), an empirical study on the problems and improvement of 112 emergency call system in Korea (Roh & Cho, 2016) and a study on the dissatisfaction factors of the 112 service (Jeong & Kim, 2016) are representative examples.

Although these studies are also important, I have found that there is a lack of research on police officers who directly handle emergency calls. Now, everyone acknowledges that 112 emergency dispatch center plays the most important role in protecting the lives, health and property of the people. However, paradoxically, police officers who are responsible for emergency calls tend to avoid working in 112 centers due to heavy workloads, night shifts, and frequent complaints from citizens. This phenomenon is more noticeable in metropolitan areas with a lot of 112 calls, including Seoul. In some areas, 112 centers cannot be staffed according to ability and aptitude. It means that the police officers who just got promoted are forced to work in 112 centers for a year or more. However, to properly protect the lives and property of the people, it is very important to raise the job satisfaction of police officers who first receive and deal with emergency calls. This is because the high level of job satisfaction of police officers improves the capacity of the police organization as a mental asset, and further contributes to creatively solving various crimes and disorders in the local community (Lim, 2012: 311).

Until now, regarding job satisfaction of police officers, previous studies mainly have examined the factors affecting the job satisfaction of police officers as a single occupation. Previous studies have primarily conducted job satisfaction surveys for local

police, investigative police, intelligence police, and female police officers. However, currently there are few studies on the job satisfaction of police officers at 112 emergency dispatch center. In other words, even though more than 3,800 police officers nationwide handle emergency reports directly, research on their job satisfaction is insufficient. In this reality, the purpose of this research is to examine empirically the factors affecting job satisfaction of police officers in 112 emergency dispatch center. Based on this, I would like to find a way to improve the job satisfaction of the police officers in 112 center. In this respect, this study is different from previous studies.

1.2. Scope and Method of Study

1.2.1. Scope of Study

First, the subject of this study is the job satisfaction of the police officers working in 112 Emergency Dispatch Center in Korea. I analyzed the factors influencing their job satisfaction in an empirical manner and suggested directions for how policing policy makers can make policies that can maximize the capacity of police officers working in 112 center in the future.

Next, the temporal scope of this study is to investigate the job satisfaction of the police officers working in 112 center in 2019. Although there were various limitations, efforts were made to investigate the current job satisfaction as possible within the scope of the researcher's ability. Although statistical analysis may be a little easier using previously published data, this may not reflect the

current situation at 112 center.

Lastly, the spatial scope was targeted to 112 police officers working in 112 centers nationwide. The previous research (Park, 2016) was limited to Seoul and Gyeonggi provinces, so I wanted to increase nationwide expandability.

1.2.2. Method of Study

First, the concepts used in this study, such as 112 center, job satisfaction were clearly defined through theoretical discussions. In addition, I reviewed major job satisfaction factors in empirical research papers related to police job satisfaction that have already been published. Through these processes, factors affecting job satisfaction of police officers working in 112 center were derived as job stress factors, human relationship factors, work environment factors, and external environment factors.

Second, survey research is generally known to be appropriate for a research on organizational behavior and attitudes toward a phenomenon in the field of public administration (Babbie, 2013). Therefore, in this study, I conducted a survey to verify my hypotheses. The detailed questionnaire items related to the factors affecting the job satisfaction of 112 center workers were extracted by examining the scales used in the research papers related to police officers. The questionnaire is structured to be suitable for nationwide unit survey. The questionnaire was designed to assess the importance of each item with a 5-point Likert scale and the items to be tested should measure the job stress factors, human relationship factors, work environment factors and external environment factors and so on to verify the hypotheses. The survey

was conducted from April to November 2019.

Lastly, the unit of analysis of this study was an individual police officer working in 112 emergency dispatch center. Among the collected questionnaires, the remaining data was used for the final analysis, except the data that have no meaning or no response to the research questions. Data collected through questionnaires was analyzed by STATA 14 program. I used Cronbach' s alpha test to verify the reliability and used various statistical techniques such as correlation analysis and regression analysis.

Chapter 2. Discussion of Theory and Literature Review

2.1. 112 Emergency Dispatch Center

2.1.1. Concept of 112 reporting system

The 112 emergency dispatch center is the core department that operates the 112 reporting system, so it is necessary to first understand the concept of the 112 reporting system.

The 112 reporting system is a system which combines the concepts of ‘Command’, ‘Control’, and ‘Communication’ to a series of processes for receiving and handling various incidents and accidents through 112 reports (112 Report Handling Manual, 2017). In other words, it refers to the emergency response system of the Korean police to minimize the initial response time, such as taking necessary actions by promptly placing police dispatch elements^② on the site through the police communication network, commanding and controlling to maintain the site situation (Jeong & Kim, 2016). In order to speed up initial response to an incident, the police are responding by classifying the response code of the case from code 0, which is the most urgent, to code 4, which is only a simple consultation report, according to the urgency of the incident (112 Report Handling Manual, 2017).

^② The police patrol car, detective team, and traffic patrol car we see at the scene can be understood as ‘police dispatch element’. They are usually dispatched after receiving the order from the 112 emergency dispatch center (112 Report Handling Manual, 2017).

2.1.2. Main functions of 112 emergency dispatch center and definition of 112 police officer

The main functions of the 112 emergency dispatch center are the reception of 112 reports and instructions, the quick and accurate identification of the various policing situations, the transmission and initial action orders, keeping a record of 112 reports and policing situations, analysis and reporting of statistics related to 112 reports (112 Emergency Dispatch Center Operation and Reports Processing Rules, Article 5). The purpose of these functions is to protect people's lives and property from various crimes and risks (Rules, Article 1).

According to Park (2016: 9), there is no academic definition of '112 police officer' in Korea. Since 112 centers have been recognized as a small function, and have undergone a rapid expansion in recent years, the concept of 112 police itself is still unfamiliar. So, Park (2016) tried to define '112 police officer', based on '112 Emergency Dispatch Center Operation and Reports Processing Rules'. The rules do not define 112 police officer directly but define '112 agent'. According to the rules, '112 agent' is a police officer who work in 112 emergency dispatch center and engage in the security situation handling work (Rules, Article 3). From the rules, two key elements of the 112 police officer can be extracted. 112 police officer should work in emergency dispatch center as a spatial requirement and, 112 police officer should receive, analyze, order, transmit and finish the 112 reports as a functional requirement (Park, 2016: 10). In this study, I defined 112 police officer according to Park's opinion.

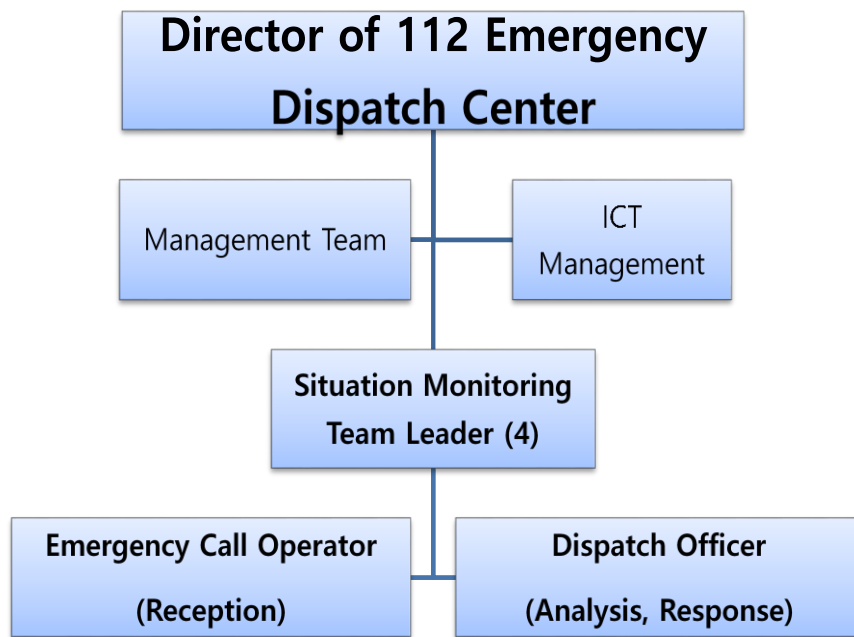
2.1.3. Organization of 112 emergency dispatch center

Currently, each provincial police agency operates its own 112 center, so 18 provincial police agency 112 centers are in operation nationwide. In addition, all police stations have a 112 center which is under control of each provincial police agency. However, since the National Police Agency is not a place to directly receive emergency reports, there is no 112 emergency dispatch center. In terms of roles, the 112 center of the provincial police agency is in charge of receiving all 112 reports and ordering about large-scale and important incidents, and the other general cases are ordered and managed by the 112 center of police station.

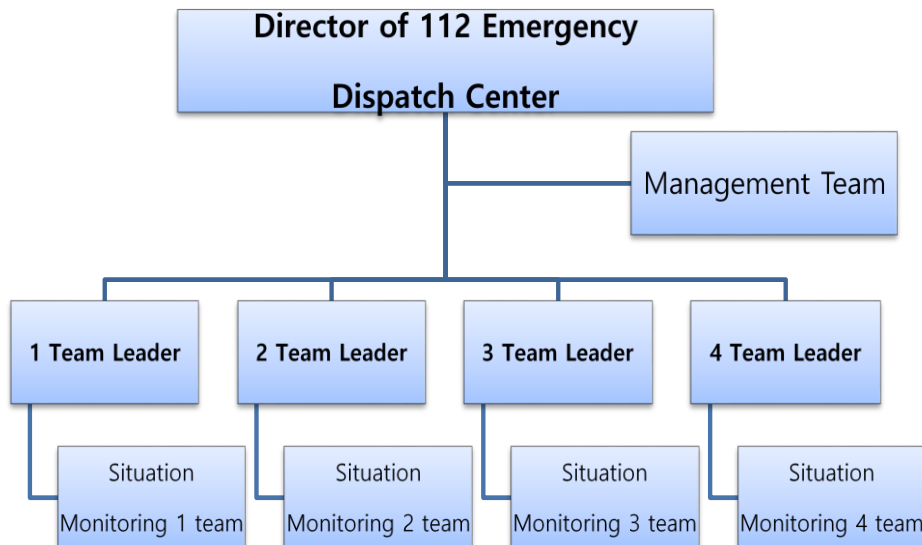
The following figure 1 shows the typical organizational chart of 112 center. The organizational structure of 112 center has a slightly different form between provincial police agency and police station. This is because when we report on number 112 (emergency call), the provincial police agency 112 center of each report location will receive all of them. On the other hand, each police station 112 center is focusing on responding to reported incidents. Due to this difference, in many cases, the receptionist (emergency call operator) and the dispatch officer are separated at the provincial police agency 112 center. However, this chart is not always applicable because each provincial police agency and police station has a slightly different organizational form depending on the manpower and the type of shift work.

Figure 1. 112 Center Organization chart

1) Provincial Police Agency 112 Center



2) Police Station 112 Center



Source. 112 Report Handling Manual (2017)

2.1.4. Status of 112 emergency dispatch center

The table 1 below shows the current status of total crimes and 5 major serious crimes^③ in Korea in the last 4 years. Although it has been on a slightly declining trend in recent years, a huge amount of crime is still occurring. In addition, there is an increasing demand for policing that demands an active and detailed response from the police.

Table 1. Total Crimes and 5 Major Serious Crimes

Classification		2015	2016	2017	2018
112 calls	Total Calls	19,104,883	19,567,083	18,953,131	18,730,627
	(percentage change)	(+1.7)	(+2.4)	(−3.1)	(−1.2)
Total Crimes	Number of occurrences (percentage change)	1,875,812 (+5.4)	1,850,689 (−1.4)	1,663,270 (−10.1)	1,580,751 (−4.9)
	Detection rate	80.7	83.9	85.0	84.0
5 Major Serious Crimes	Number of occurrences (percentage change)	587,651 (+1.5)	536,745 (−8.7)	502,539 (−6.2)	488,288 (−2.8)
	Detection rate	72.3	76.9	78.8	78.1

Source. Korean National Police Agency 2019 White Paper

^③ The police classify murder, robbery, sexual assault, theft, and violence as 5 major serious crimes.

First, let's take a look at the local manpower status of 112 center, where citizens first encounter the police. As shown in the table 2 below, when compared to December 2015, the total number of police officers in 112 center increased at all regional offices. As of March 2019, there are 3,812 police officers who work in 112 centers across the country.

Table 2. Number of police officers working in 112 centers

Belong to	Provincial Police Agency 112 center		Police Station 112 center		Total Numbers	
	2015	2019	2015	2019	2015	2019
—						
Seoul	178	186	520	543	698	729
Busan	76	79	203	207	279	286
Daegu	48	54	136	144	184	198
Incheon	52	62	137	148	189	210
Gwangju	40	46	70	72	110	118
Daejeon	44	47	65	86	109	133
Ulsan	29	34	46	58	75	92
Gyeonggi	199	Southern ^④ 143 Northern 65	561	Southern 462 Northern 155	760	Southern 605 Northern 220
Gangwon	44	41	95	102	139	143
Chungbuk	40	40	68	83	108	123

^④ The Gyeonggi Provincial Police Agency was divided into the Southern Gyeonggi Police Agency and the Northern Gyeonggi Police Agency in March 2016 for efficient policing due to the increasing population of Gyeonggi Province.

Chungnam	44	45	105	109	149	154
Jeonbuk	45	49	106	113	151	162
Jeonnam	45	45	126	128	171	173
Gyeongbuk	48	48	129	147	177	195
Gyeongnam	60	64	131	155	191	219
Jeju	23	27	18	25	41	52
Total	1,015	1,075	2,516	2,737	3,531	3,812

Source. Internal data of Korean National Police Agency (2019 Data), 2015 Data as cited in Park (2016: 19)

Looking at the two tables together, we can confirm that the Korean National Police Agency increased its manpower in the 112 center to cope with the increasing demand for security. Also, we can see that 112 cases are being filed far more than the total number of crimes. For example, in 2018, 1.58 million crimes were filed, but 112 reports exceeded 18.73 million. Through this, it can be assumed that many people are asking the police to respond to various issues beyond simply responding to crimes.

2.1.5. Emerging importance of 112 emergency dispatch center

The importance of initial police response to the incident is desperately felt by all, as Korean society experienced various major disasters and accidents. This is because if the initial report reception and command are smooth, efficient response is possible.

In particular, Korean National Police Agency experienced the unprecedented thing that the police commissioner general resigned due to the inadequate initial response of the 112 center in

the 2012 Suwon murder case^⑤. Specifically, the female victim of the Suwon murder case reported that she was being raped and where she was located. However, the 112 center police officer who received this overlooked reporting that the woman was in the house and did not inform this information to the police on the scene. As a result, police on the scene only checked outside of areas and did not search homes in those areas. She was found murdered severely in that area. It is an incident that resulted in tragic consequences due to the combination of incompetence and carelessness of 112 center.

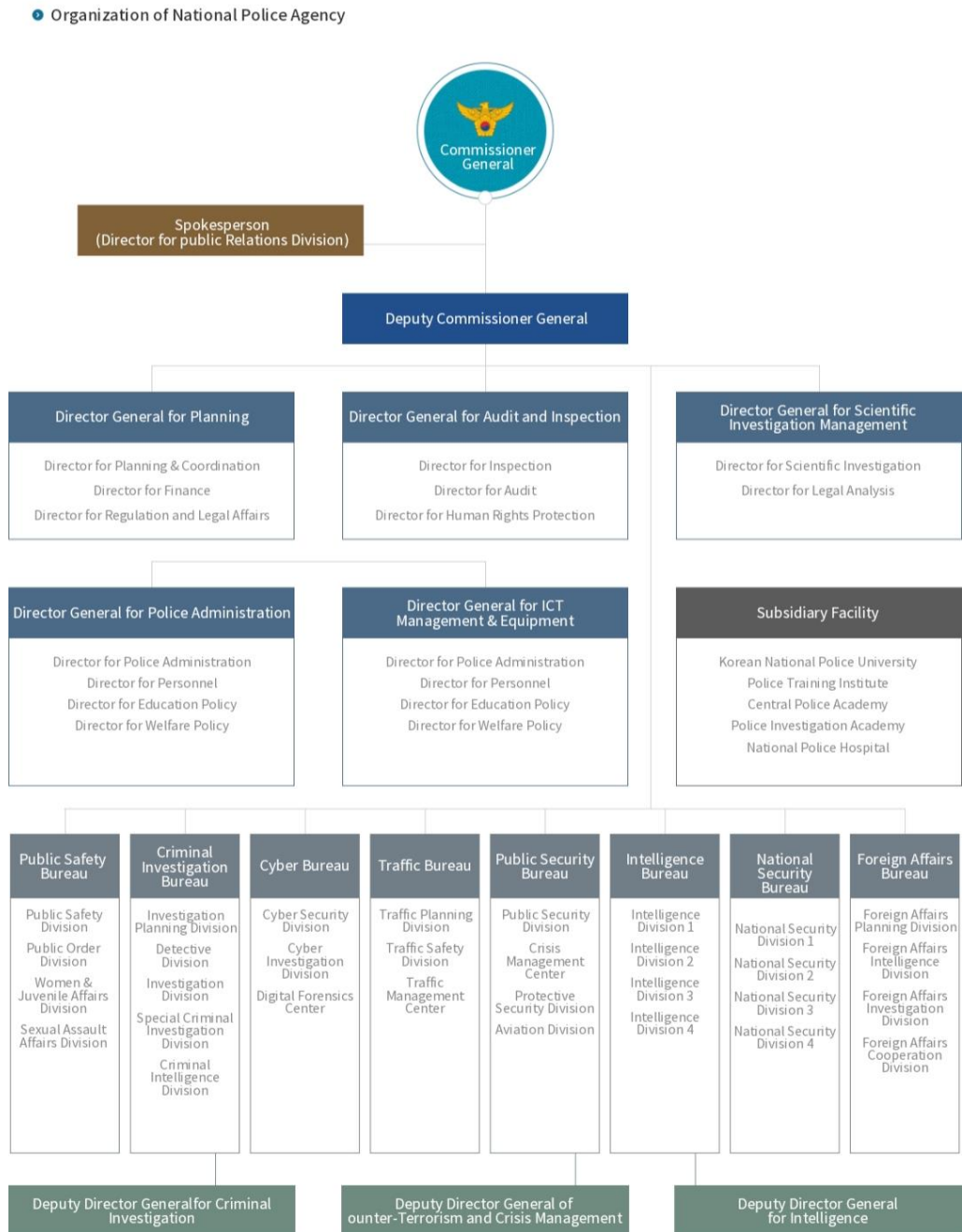
Likewise, in the case of the Sewol ferry^⑥ in 2014, due to an initial response failure, the Korean Coastal Guard (maritime police) was forced to dismantle the organization. Many high school students who boarded a ferry for a school trip waited for the rescue of the coast guard inside the sinking ferry, but the initial response from the coast guard control room was the worst. They did not even know where the ship sank, and they repeatedly asked questions. These scenes caused great anger to the people. In the end, the president had to decide to disband the maritime police.

In the midst of these failures, paradoxically, the importance of the 112 center is rising. This importance is also reflected in its status within the organization. As shown in figure 2 below, in the past, the organization chart of National Police Agency did not even show the 112 center or the department overseeing the 112 center.

^⑤ “S. Korea police chief resigns amid outrage over murder”, CNN news (2012. 4. 9.) Retrieved 2020. 11. 10. from <https://www.cnn.com/2012/04/09/world/asia/south-korea-police-resignation/index.html>

^⑥ The Sewol Ferry’s disaster occurred on April 16, 2014. Unfortunately, 304 people died in this terrible accident. If the initial response of the maritime police had been good, more people could have been saved before the ferry sank (Hong, 2015).

Figure 2. Organization chart of National Police Agency



Source. Korean National Police Agency Homepage^⑦

^⑦ National Police Agency Organization Chart, Retrieved 2018. 12. 10. from <https://www.police.go.kr/eng/main/contents.do?menuNo=500121>

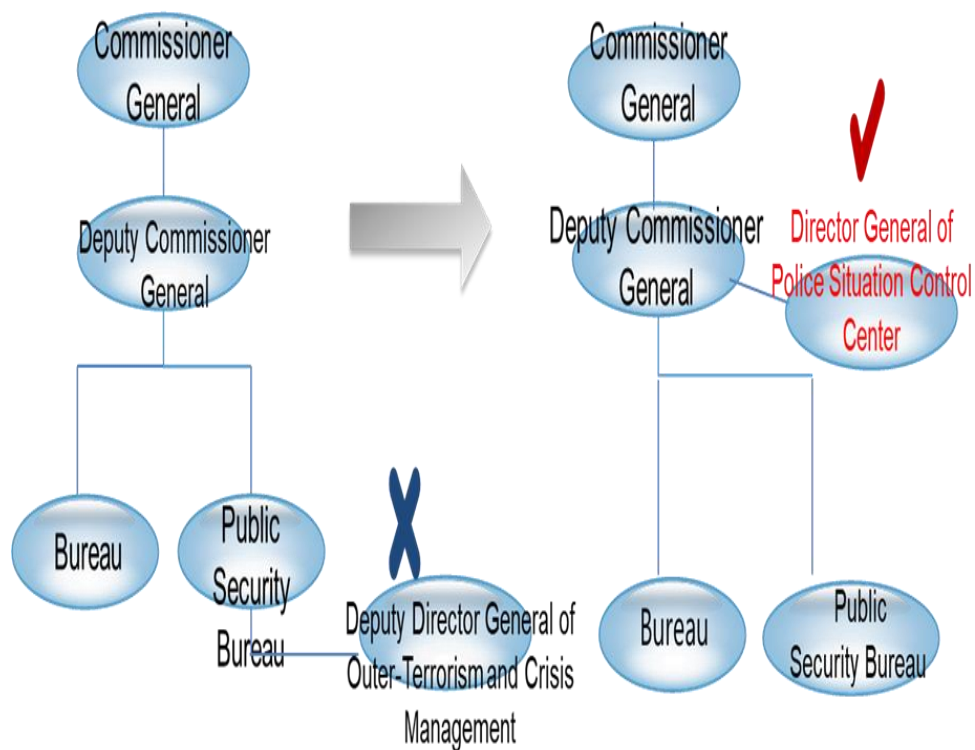
Not long ago, the 112 hotline section, which oversees 112 centers across the country, existed as a very small function of the Korean National Police Agency. Specifically, 112 hotline section is a very small subdivision of the Public Safety Division of Public Safety Bureau in the conventional police organization chart. In other words, 112 hotline section were regarded as a small partial function of Public Safety Bureau, not an independent department.

However, as shown in figure 3 below, the Korean National Police Agency reorganized in February 2019. The remarkable change is that Director general of Police Situation Control Center was newly established^⑧. The Director general of police situation control center directly belongs to the Deputy Commissioner General, the second powerful police officer in the police organization and helps him to supervise police security situation. Its main duty is to monitor real-time security and disaster situation of the nation centered by national interest, and to supervise department and regional coordination. In addition, planning and operation of 112 center is included within the scope of the newly established director general's mission, which raises the status of the 112 center. This change is interpreted as a big symbol showing how important 112 center is in the National Police Agency. This reorganization means that the situation management of important cases is managed at the headquarters level from now. It is also expected that the 112 Center's internal and external status will become more important in near future by securing human resources and strengthening support for physical equipment.

^⑧ With this reorganization, Deputy Director General of outer terrorism and crisis management was abolished.

Figure 3.

Organization Reform



Source. Internal data for reorganization (2019. 2.)

2.2. Job Satisfaction

2.2.1. Definition of Job Satisfaction

Scholars' interest in job satisfaction began in the 1930s and many scholars have accepted job satisfaction as a research subject since then (Shin, 2016). Hoppock's (1935) research is believed to be the beginning of a job satisfaction study (Kim, 2006; Yun, 2014)^⑨. Since then, scholars have come up with various research results on job satisfaction, but the definition of job satisfaction basically differs slightly among scholars. The definition of job satisfaction is important because the measuring tool can change depending on how job satisfaction is defined (Song, 2015).

The following table 3 summarizes the definition of job satisfaction of foreign scholars. One of the most widely known definitions in job satisfaction research is Locke's definition of job satisfaction. Locke (1976) defined job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences". Reitz (1981) defined job satisfaction as an individual's feelings toward a job and Alavi and Askaripur (2003) said that job satisfaction is self-esteem from the job process.

^⑨ However, according to Zhu (2013: 293), the formal definition of the job satisfaction is traceable to the studies of Fisher and Hanna in 1931. Zhu introduced that Fisher and Hanna defined the job satisfaction as a product of non-regulatory mood tendency.

Table 3. Definition of Job satisfaction (Foreign scholars)

Scholar	Definition
Locke (1976)	A pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences
Engel (1978)	Assessing that the chosen alternative is consistent with one's current beliefs about the alternative
Reitz (1981)	Individual's feelings about the job, which consists of three elements: behavior, information, and emotion
Hopkins (1983)	Fulfillment or satisfaction of specific needs associated with work
Alavi & Askaripur (2003)	Self-esteem from the job process
Wright (2004)	Mental pleasure from one's job through satisfaction of needs, interests, and expectations

Source. Reorganized and updated from the tables of Han (2013: 21) and Lee (2018: 10)

In Korea, similarly, various definitions about job satisfaction have been discussed. The following table 4 summarizes the definition of job satisfaction among Korean scholars.

Table 4. Definition of Job satisfaction (Korean scholars)

Scholar	Definition
Lee (2005)	In the process of performing the tasks of the members of the organization, the perception response of the members about how the intrinsic or external needs of the individual are satisfied
Kim (2006)	Job satisfaction is not only the job but also the person's emotional response to the external conditions such as human relations, personal attitudes related to jobs, and wages
Lee (2011)	The psychological state of all workers involved in the production of goods and services
You & Im (2016)	The state of mind, degree of satisfaction, or positive feelings one has about the various elements of one's job

Source. Reorganized and updated from table of Yun (2014: 12)

In addition to those listed in the table 4, Han (2013) defined job satisfaction as the state of emotions that feel in the work system, working environment, and relationships with colleagues while performing the job as a member of the organization. In a recent study, job satisfaction is defined as the degree of overall satisfaction with regard to their job (Shin, 2016). She said that if the job satisfaction is a state of pleasant or positive emotion, the job

dissatisfaction is a state of unpleasant or negative emotion.

As a result of comprehensively reviewing the definition of job satisfaction of many scholars, the concept of job satisfaction was defined as follows. Job satisfaction is an emotional reaction that an organization member feels about the job itself, the overall job, and the job environment while working within the organization (Park, 2013). I used this concept according to Park's opinion in this study.

2.2.2. The importance of Job satisfaction

Job satisfaction is one of the most researched areas of social science. Many organizations try to improve the productivity and efficiency of organizations by identifying and increasing job satisfaction of workers in their organizations. Some argue that a strong causal relationship cannot be demonstrated whether job satisfaction actually affects job performance. However, although there was no unified opinion through empirical research on job satisfaction and job performance, it can be said that there is some relevance between them (Park, 2013: 10). You and Im (2016) pointed out that job satisfaction is very important to managers because they act as independent variables influencing the organization. At the same time, they argued that job satisfaction is not fixed but has characteristics of dependent variables that can be changed by external factors.

About the importance of job satisfaction in the police organization, many scholars, such as Yun (2014) and Park (2016),

insist that police job satisfaction is an important factor to determine the effectiveness and efficiency of policeman's job performance. Also, it affects formation of relationship with police and local people (Yun, 2010: 112). Lastly, it exerts great influence on psychological stress and turnover intention of police officer (Shin, 2016). The importance of job satisfaction is emphasized in that job satisfaction affects the organization's work performance and effectiveness beyond the individual level. Accordingly, the National Police Agency also conducts an annual police job satisfaction survey since 2005 and announces the result to use it as data to improve job satisfaction (Song, 2015).

With the same logic, it is judged that investigating the factors of job satisfaction of 112 center police officers and making efforts to improve them is important not only at the individual level of 112 center police officers, but also affects the work performance and effectiveness of 112 centers.

2.2.3. Theories about factors affecting job satisfaction

The traditional discussion of job satisfaction has developed in relation to the need fulfillment theory that satisfy human needs^⑩. These theories suggest various factors that influence job satisfaction. A brief look at representative theories is as follows.

^⑩ Motivation theories are mainly divided into content theory and process theory (Pynes, 2013). However, since my study focuses on the factors (contents) that induce job satisfaction, the process theory is omitted.

2.2.3.1. Maslow's hierarchy of needs

Maslow (1954) claims that there is a desire common to all human beings, and that human needs are divided into physiological needs, safety needs, love and belonging needs, esteem needs, and self-actualization needs. According to the hierarchy of needs, human needs are hierarchically structured in stages, and needs are sequentially executed according to hierarchies. That is, when the lower needs are satisfied, the upper level needs begin to be expressed.

Maslow's theory (hierarchy of needs) is theoretically presented as the process of fulfilling human desire (Park, 2013). It can be also discussed in relation to job satisfaction in that one can feel satisfaction if need is satisfied (Kang, 2017:17). In other words, satisfying various needs in the job performance process can induce job satisfaction.

However, Maslow's hierarchy of needs has some limitation as follows. First, the hierarchy of the five needs is not always fixed and the priority of the hierarchy can be different from people to people (Oh, 2016: 16). Second, even if the lower level needs are met to some degree, it is not true that the need is not fully functioning as a motivation (You & Im, 2016). It can still exist as a motivation. Third, there are factors that cause human behavior in addition to needs, such as habit (Oh, 2016: 16).

2.2.3.2. Alderfer's E.R.G. theory

Alderfer (1969) developed Maslow's hierarchy of needs and categorized human needs into Existence needs (E), Relatedness needs (R), and Growth needs (G). This is abbreviated as E.R.G. theory.

The need for existence is related to the physical and physiological needs of humans such as hunger, thirst, and residence. This need for existence is similar to physiological need or physical safety need of Maslow's hierarchy of needs. The need for relationship is related to the relationship with other people. In Maslow theory, it is related to the need for interpersonal safety. Also, it is similar to belongingness need such as human relations, need for social affection, and need for respect from others. The need for growth refers to an individual's need for creative growth. Not only can each individual maximize his (or her) abilities, one can also engage in tasks that require the development of new skills. Maslow's self-actualization need is similar to growth needs (Kang, 2017: 20–21).

Alderfer's theory differs from Maslow's theory in that it explains the redundancy phenomenon of needs and suggests the backward and downward regression of needs (Oh, 2016).

The views of the two scholars can be visually summarized in the table 5 below.

Table 5. Comparison of Maslow and Alderfer

Maslow’s theory		Alderfer’s theory
Self–Actualization Needs		(G) Growth Needs
Esteem Needs	Self–confidence	
	Recognition of others	(R)Relatedness Needs
Social Needs (Love and belonging needs)		
Safety Needs	Interpersonal safety	
	Physical safety	(E)Existence Needs
Physiological Needs		

Source. Reorganized and updated from the table of Kang (2017)

Moreover, Alderfer argued that through ERG theory, two or more desires can act simultaneously and cause behavior. This contrasts with Maslow's theory that human behavior is triggered solely by the most prevailing desire (Oh, 2016: 18).

2.2.3.3. Herzberg's Two-factor theory

The two-factor theory of Herzberg et al. (1959) is based on the fact that the factors that give satisfaction to the organizational members are different from the factors that cause dissatisfaction. The motivation factor is effective in motivating the members of the organization to perform excellent work. The sense of accomplishment, recognition of job achievement, rewarding job,

responsibility, growth and development are the motivators. Hygiene factors, on the other hand, are factors that cause the members of the organization to feel dissatisfied, including pay, interpersonal relationship, working conditions and so on.

According to Herzberg (1968), eliminating the hygiene factors that caused dissatisfaction cannot increase or induce satisfaction, and only the level of dissatisfaction can be reduced. Herzberg argued that members need to reach an acceptable level of hygiene in order to feel neutral about their job. He also said that the only way to motivate workers is to give him a challenging job to take charge of.

Therefore, according to Herzberg, managers should focus on eliminating the dissatisfaction caused by hygiene factors and improving motivation factors in work environment in order to improve job satisfaction (Lim, 2014: 243).

2.2.3.4. Interaction model (a comprehensive view)

You and Im (2016) say that the main theories about determinants of job satisfaction are need fulfillment theory, rewards theory, discrepancy theory, and equity theory. But they point out that each theory has its own shortcoming, so it is useful for HR managers to cover all the factors related to job satisfaction more than to individually determine the determinants of job satisfaction. According to Wexley and Yukl (1984, as cited in You & Im, 2016: 176–177), personal characteristics, situational characteristics, and

job characteristics have an important effect on job satisfaction. So, an interaction model is suggested as alternative model based on the interaction between all these characteristics.

2.3. Literature Review

2.3.1. Previous Studies on Job Satisfaction of Police Officer

Based on the functions, police organizations are divided into public safety bureau, criminal investigation bureau, cyber bureau, traffic bureau, public security bureau, intelligence bureau, national security bureau, foreign affairs bureau. A lot of researches have been done to find out factors affecting on job satisfaction of various police officers. The typical police job satisfaction studies in Korea are as follows.

Kim (2001) conducted a survey on ‘rank and file^⑩’ police officers about their job satisfaction (total of 373 people). In this study, he assumed that the hygiene factors would have a greater influence on job satisfaction than the motivation factors because the low-ranking police officers had few promotion opportunities anyway. Specifically, independent variables in this study were demographic factors, working condition factors (divided into motivation factors, hygiene factors), police environment factors. As a result, job satisfaction was correlated with working region, special

^⑩ Policeman, Senior policeman and Assistant Inspector are often referred to as rank and file police officers.

task, citizen cooperation in demographic factors. Job satisfaction was high when they felt personal development, achievement sense, and promotion opportunities (motivation factors). Among hygiene factors, punishment and job stability were the most relevant.

Kim (2006) investigated police job satisfaction and the effect of communication activities on job satisfaction. He conducted a survey of 270 police officers in 9 police station in Daegu. As a result of research, it was confirmed that the relationship between communication activities and job satisfaction showed higher job satisfaction as communication was more active. Based on this, he suggested improvement of administrative behavior, recognition of importance of communication and improvement of organizational culture as job satisfaction measures.

Hwang (2008) analyzed the factors affecting job satisfaction of 737 police officers in 20 police patrol divisions in four police stations in Seoul. He investigated the factors affecting job satisfaction, such as personal characteristics, job intrinsic factors (role perception), external factors (perception of working environment), and external environment perception. As a result, perceived police officers' perceptions about the trust and respect of the police by the citizens as the external environmental factors have the strongest influence on the job satisfaction. Also, the perception of the equity of the compensation for the work, and leadership perceptions have a significant effect on job satisfaction.

Park and Lee (2013) focused on the fact that many of the police officers were working in shifts, and examined the differential

factors affecting job satisfaction between shift police officers and non-shift police officers. Researchers analyzed the data of the Police Officials Job Characteristics Questionnaire Analysis, which was conducted in 2011 (total of 619 people). For the shift officers, the appropriateness of the pay and the sense of recognition in the organization are highly related to job satisfaction. In contrast, for non-shift officers, participation in decision making positively affects positively and workload has a negative effect.

Song (2015) measured the job satisfaction of the economic team investigators in the front line by dividing it into job factors, human relationship factors, and work environment factors. He conducted a survey of investigators from economic teams at 30 police stations nationwide (total of 338 people). Job factors such as psychological exhaustion and job stress all affected job satisfaction. Communication-related components affect job satisfaction. Also, it was analyzed that the satisfaction with job fairness of promotion and performance evaluation affects job satisfaction.

As discussed above, in the conventional research on job satisfaction of police officers, the basic form was to establish independent variables and to check the correlation between it and job satisfaction. Based on this, an alternative to increase job satisfaction was suggested.

2.3.2. Previous Studies on Job Satisfaction of Police Officer in 112 emergency dispatch center

As mentioned in the introduction, studies on 112 center to date have mainly focused on improving the efficiency of the 112 system itself or improving police response to 112 reports. Therefore, there is little studies that directly address the job satisfaction of police officers at 112 center.

Regarding this, there is a study of Park (2016) who has studied job effectiveness. He defined that job effectiveness consisted of job satisfaction and job performance. He conducted a survey of 112 center police officers in Seoul and Gyeonggi province (total of 350 people), analyzing the factors affecting the job effectiveness of the 112 police. This study is noteworthy in that it focuses primarily on police officers working at 112, not 112 system. He examined that how personal psychological characteristics, institutional characteristics, job environmental characteristics and demographic characteristics of the police officers in 112 center can affect their job effectiveness. In this study, he found out that friendliness and extroversion among the personal psychological characteristics have meaningful effect on the job effectiveness of 112 police officers. Among the institutional characteristics, promoting spirits and work base are the most important factors. Among job environmental characteristics, the tension of work, job importance and work discretion are significant for job effectiveness. Furthermore, based on these results, he suggested adopting character test to 112 police officer selection process, creating special allowances for 112 center to promote spirits, professional education and special program for relieving work stress and so on.

Recently, Cho and Kim (2020) analyzed the effect of job stress of 112 police officers on job attitude and job satisfaction. This study was conducted as a questionnaire survey by 112 police officers of 5 provincial police agencies and affiliated police stations. As a result of the analysis (total of 123 people), it was confirmed that the role conflict had a negative relationship with job satisfaction. On the other hand, and role ambiguity and role overload have no significant effect on job satisfaction.

2.3.3. Factors affecting job satisfaction of police officers in 112 emergency dispatch center

As we have seen in previous literature review, generally, studies on job satisfaction of police officers in Korea regarded job characteristics, human relations, pay, welfare benefits, demographic factors and so on as independent variables, and job satisfaction as dependent variables. Sometimes, researchers set up relatively unique independent variables such as psychological burnout, organizational culture, and communication, and tried to identify the relationship with job satisfaction (Song, 2015).

Considering that the 112 center is also one of the police function departments, it was judged that valid independent variables in the existing police officer job satisfaction study were also effective in measuring the job satisfaction of 112 center employees. So, I have reviewed a lot of previous studies related to police job satisfaction. Through this process, those considered to be the main independent variables in the police job satisfaction survey were

selected and classified into four major categories. They are job stress factors, human relationship factors, work environment factors, and external environmental factors. This classification is the result of comprehensive consideration of factors that have already been verified in domestic and foreign papers.

2.3.3.1. Job Stress factors

Job stress factors are typical intrinsic factors in the job satisfaction survey. This is because the word ‘job satisfaction’ itself means the level of satisfaction that comes from a job. So, it is thought that job stress factors have a great influence on job satisfaction.

Kim (2012) examined relationship between white-collar crime investigators’ role stress and their commitment to investigation. He defined that role stress consisted of role conflict, role ambiguity, and role overload. His research showed that the higher the ambiguity of role, the lower the motivation for investigation. However, there was no significant correlation between role conflict and role overloading with intention to investigate.

Yun (2014) extracted 24 independent variables based on previous studies in his thesis titled ‘Factors Affecting Police Job Satisfaction among police officers’ and classified them into 6 elements. The six elements are sociodemographic characteristic element, job related element, human relationship element, working environment element, organizational culture element, and external

environment element. Among them, he defined that the job related element was composed of job stress and burden of duty. As a result, he found that job stress and burden of duty clearly have a negative relationship with job satisfaction.

In particular, Kim and Kang (2018) introduced questions appropriate to 112 job stress measurement through a paper titled ‘The Korean 112 Police Job Stress Scale Development and Survey’. Also, they pointed out that stress due to 112 report work and work environment is relatively high in police organization.

According to the preceding studies above, it was confirmed that job stress factors had an effect on job satisfaction.

2.3.3.2. Human Relationship factors

I assume that the policeman is also an employee, and smooth interpersonal relationships at work have a very important impact on job satisfaction. They usually spend more than 12 hours a day with their team members when working in the form of shifts at work. Therefore, interpersonal relationships with supervisors, coworkers and subordinates are even more important when considering the working hours of a police officer. In this context, Kim (2006) stated that job satisfaction was higher when the communication within the organization was smooth.

We can easily think that although the influence of the boss is absolute even for ordinary workers, the leadership of the boss is more influential in a police organization where orders and obedience are emphasized. The problem is that the police organization is a

hierarchical organization, and at the same time, it must actively reflect changes such as the development of various IT technologies and the advancement of criminal techniques to keep society safe. Under these circumstances, transformational leadership emerged as a concept that contrasts with conventional transactional leadership. Transformational leadership is a leadership style in which leaders work with a team to identify the change they need, create a vision to drive change through inspiration, and implement change with them (Rainey, 2009). Daft (2015) also emphasized that transformational leadership is a particularly useful leadership in bringing about organizational change.

Regarding transformational leadership in Korean police, Hwang et al (2005) investigated how the transformational leadership^⑫ of the police district leader affects the work performance of the subordinates, and the relationship between the transformational leadership and job satisfaction and organizational commitment. As a result, it was found that transformational leadership acts as a major variable that determines job satisfaction and organizational commitment. In addition, Lee (2004) conducted a survey to analyze how the transformational leadership of police chief affected job satisfaction of subordinates. In conclusion, he suggested that relationship between transformational leadership and organizational job satisfaction were positive.

^⑫ Transformational leadership was first presented by Burns in 1978 and became widely known by Bass. Transformational leadership is a concept that differs from transactional leadership, and focuses on how leaders change their organizations, society, and subordinates (Seo & Yun, 2003).

To sum up, we can conclude that human relationship factors have a great influence on the job satisfaction of police officers, because the police work is carried out in a hierarchical structure.

2.3.3.3. Work Environment factors

As noted earlier, according to Herzberg (1968), job satisfaction is the result of the work environment. Motivation factors and hygiene factors of Herzberg are related to job satisfaction or job dissatisfaction (Kim, 2001). Therefore, the work environment factors can be key factors in determining the job satisfaction of police officers.

Yun (2014) regarded work environment factors as concepts including promotion, punishment, welfare service and wage. He found that fair promotion and punishment, good welfare facilities, and high level of wage have a positive relationship with job satisfaction. Likewise, Kim (2001) confirmed that job satisfaction was high when the police thought that there were many promotion opportunities or when the discipline was fair. However, Jung and Son (2006) argued that, in the case of discipline, the police officers' perception of discipline is so negative that differences in their perceptions do not have a significant effect on job satisfaction.

In the social atmosphere that emphasizes work–family harmony and well–being, police officers are also very interested in these things. Shin (2009) found that job satisfaction is higher as the awareness of job interest, social recognition, and economic compensation is higher, through an empirical study. Based on this

finding, in order to improve the job satisfaction of police officials, he insisted on strengthening measures against social and economic compensation.

In summary, it is expected that the police officers are affected by various aspects of the work environment.

2.3.3.4. External Environment factors

Police officers are street-level bureaucrats who meet with citizens on the front line (Guy & Ely, 2018). Therefore, the support and trust from citizens affects the police's job satisfaction. There were many studies that classified community perception of police as external environmental factor of job satisfaction (Kim, 2001, Carlan¹³, 2007). However, as a result of their research, it was found that the perception of the local community and job satisfaction were not related.

In contrast, Hwang (2008: 168) found that the more people who regard the police as trust and respect, the higher the job satisfaction of police officer. Furthermore, he found that the perception of patrol police officers for the trust and respect they receive from citizens is the most powerful factor in job satisfaction. In other words, this means that police officers put high values on how they are perceived by the citizens of their service.

In addition, Yun (2010) proposed a research model including new determinant factors while comprehensively examining previous

¹³ In a study of Alabama police, Carlan found no significant correlation between community respect and job satisfaction.

studies on police job satisfaction. In his study, he set the media's interference as an external environmental factor of job satisfaction. Since the influence of the media is getting stronger in modern times, I think that this variable is important in job satisfaction survey. If the media does not consider the situation of the police and shows an overly critical position on police activities, it certainly affects the job satisfaction of police officers.

In consideration of these points, it was decided to include the trust and respect of citizens and the critical attitude of the media as an independent variable.

2.3.4. Differentiation of this study from previous studies

The main purpose of this study was to analyze the factors affecting job satisfaction of police officers working in the 112 center. Through this, I wanted to find solutions to bring out the job satisfaction of 112 center worker, and ultimately improve the work performance of 112 center, leading to more efficient crime control and provision of better security services.

As mentioned earlier, there have been various preceding studies on police job satisfaction, but it was difficult to find that directly dealing with job satisfaction of 112 center worker. Park's paper (2016) dealt with 112 job satisfaction, but it regarded job satisfaction just as a part of job effectiveness. In addition, the 112 center has been rapidly changing in recent years, such as being promoted to department units and reinforcing manpower and equipment, so it was necessary to reflect the latest job satisfaction

including these changes' effect. Recently, Cho and Kang (2020) examined the relationship between 112 work stress and job satisfaction. However, they focused only on the sub-factors of job stress, they cannot verify the influence of other factors on job satisfaction of 112 police officer.

Therefore, there is a difference of this study in finding out the main factors affecting the job satisfaction of 112 police officer by extracting all items classified as major factors in the police job satisfaction.

Chapter 3. Research Design and Method

3.1. Research Model and Hypothesis

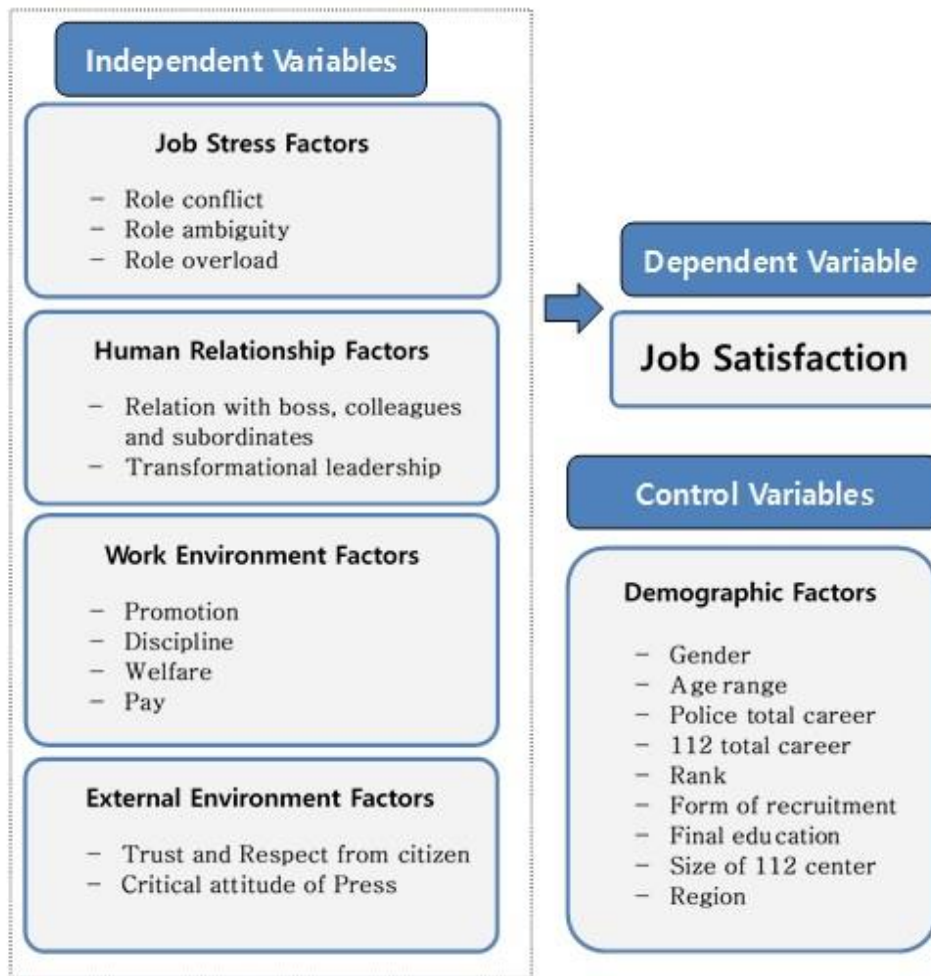
3.1.1. Research Model

This study is about finding the main factors affecting the job satisfaction of police officers at 112 centers. To achieve this purpose, independent variables, dependent variables, and control variables were set separately. Based on the previous review, I set job stress factors, human relationship factors, work environment factors, and external environment factors as independent variables, and the dependent variable was job satisfaction of the 112 center police officers.

There are many previous studies examining whether demographic factors, such as gender and age, affect police officers' job satisfaction. However, these variables are only factors that have already been determined, and it is difficult to make changes. Therefore, the factors that can change according to the efforts of the police organization were composed as independent variables to find out their influence. In that respect, all demographic factors were identified as control variables.

The analysis frame of this study reflecting these points is shown in figure 4.

Figure 4. Analytical Framework



3.1.2. Research Hypothesis

As in the above analysis frame, this study classified the independent variables into job stress factors, human relationship factors, work environment factors, and external environment factors. After that, job stress factors consisted of role conflict, role ambiguity, and role overload, and human relationship factors are

composed of relationships with superiors, colleagues, and subordinates, and transformational leadership of the superiors. In addition, work environment factors are the advantages to promotion, the irrationality of discipline, satisfaction of welfare, and satisfaction of pay. Lastly, the external environmental factors consisted of citizens' trust and respect for 112 police, and the media's critical attitude toward 112 police.

Finally, I set up a detailed hypothesis to find out the specific impact of the detailed factors within the same category. These hypotheses are summarized in the following table 6.

Table 6. Detailed hypotheses

Division	Hypothesis	Content
Job Stress Factors	1	Role conflict will have <u>negative</u> effects on job satisfaction of police officers in 112 center.
	2	Role ambiguity will have a <u>negative</u> effect on the job satisfaction of police officers in 112 center.
	3	Role overload will have a <u>negative</u> impact on the job satisfaction of police officers in 112 center.
Human Relationship Factors	4	The positive relationships in the workplace will have a <u>positive</u> impact on the job satisfaction of police officers in 112 center.

	5	The transformational leadership of direct supervisors will have a <u>positive</u> effect on the job satisfaction of police officers in 112 center.
Work Environment Factors	6	Advantages to promotion will have a <u>positive</u> effect on job satisfaction of police officers in 112 center.
	7	The irrationality of discipline will have a <u>negative</u> impact on the job satisfaction of police officers in 112 center.
	8	Welfare satisfaction will have a <u>positive</u> effect on the job satisfaction of police officers in 112 center.
	9	Satisfaction with pay will have a <u>positive</u> effect on the job satisfaction of police officers in 112 center.
External Environment Factors	10	The trust and respect from citizens on 112 police will have a <u>positive</u> impact on the job satisfaction of police officers in 112 center.
	11	The critical attitude of the press to 112 police will have a <u>negative</u> impact on the job satisfaction of police officers in 112 center.

3.2. Operational definition of variables

3.2.1. Dependent variable

In this study, a dependent variable is ‘job satisfaction of police officer in 112 center’ measured as a single item. Job satisfaction is measured by a five–point Likert scale ranging from ‘very dissatisfactory’ to ‘very satisfactory’.

3.2.2. Independent variables

3.2.2.1. Job stress factors

Job stress factors consisted of role conflict, role ambiguity, and role overload. This is because if we look at the causes of job stress in detail, it can be determined that job stress is caused by role conflict, role ambiguity, and role overload when doing job. Questions for measuring job stress factors were used by modifying the questions used in Kim’s study (2012) to fit 112 centers. Each element of work stress was measured with 3 questions each.

3.2.2.2. Human relationship factors

The human relationship factors are composed of relations with superior, peer, and subordinate and immediate boss’s transformational leadership. First, three questions used in Song’s study (2015) were used to measure positive human relationships with boss, colleagues, and subordinates. In addition, five questions

used in the study of Seo and Yun (2003) were used as they were for the questions on the transformational leadership of immediate boss.

3.2.2.3. Work Environment factors

The work environment factors are largely comprised of advantages to promotion, irrationality of discipline, satisfaction of welfare and satisfaction of pay. For the questions for measuring the factors of the working environment, the questions used in Yun (2014) were modified and used for this study. Each of the four elements is designed to be measured with three questions.

3.2.2.4. External Environment factors

The external environment factors are made up of trust and respect from citizens on 112 police and the critical attitude of the press toward 112 police. The reason for putting these variables into this study is that police officers working at 112 will be influenced by environmental factors outside the police organization, not just inside the organization. The questions used to measure citizen's trust and respect for police in Yun (2014)'s study, were used to measure citizens' trust and respect for the 112 police. Questions about the attitude of the press were constructed based on my field experience. Each element was briefly composed of 2 questions.

3.2.3. Control variable

In this study, gender, age range, total career of police officer, total career as a 112 police officer, rank, form of recruitment, final education level, size of 112 center, belonging provincial police agency are control variables. Since these variables are variables that may directly or indirectly affect the independent variables and dependent variables, I should investigate the sociodemographic factors, but I want to obtain more valid results by controlling them.

3.3. Data Collection and Its Analysis

3.3.1. Data Collection

Generally, survey research is known to be appropriate for a research on organizational behavior and attitudes toward a phenomenon in the field of public administration (Babbie, 2013). Therefore, in this study, I will conduct a survey to verify my hypotheses.

To secure nationwide scalability of research results in this study, all police officers working in 112 center are survey subjects. Currently, there are more than 3,800 police officers nationwide working in 112 centers in Korea.

However, due to the nature of the work of 112 center such as urgency, the response rate of the questionnaire conducted by mail or e-mail is considerably low. Also, there is a high possibility that unreliable answers will be given due to work tension and fatigue. Considering these problems, I conducted a questionnaire

survey on the trainees who were admitted to the Police Human Resources Development Institute who can be faithful to the survey. This is because they are free from work during the two weeks of training^⑭. The following table 7 is an annual training plan for workers of the 112 center of the Police Human Resources Development Institute in 2019.

Table 7. Training Plan for workers of the 112 center

Education target' s rank	Policeman ~ Superintendent	
Training period	2 weeks	
Number of training	9 times in 2019	
Number of trainees per training	30	
Total number of trainees	270	
Monthly training plan	January	No training scheduled
	February	No training scheduled
	March	3.11~3.22 / 3.25~4.5
	April	4.15~4.26
	May	5.20~5.31
	June	6.10~6.21 / 6.24~7.5

^⑭ Conversely, a two-week break may result in different results from the actual satisfaction at 112 center. So, as far as the schedule allows, a survey was conducted on the first day of education.

	July	No training scheduled
	August	8.19~8.30
	September	No training scheduled
	October	10.21~11.1
	November	11.11~11.22
	December	No training scheduled

*Source: Website of the Police Human Resources Development Institute (2019)

In 2019, a total of 9 courses (30 trainees at a time), with a total of 270 trainees, were scheduled to attend the 112 center training courses. The ranks of trainees were from policeman to superintendent. In addition, when selecting trainees at the Police Human Resources Development Institute, they tried not to be preoccupied with a specific region or a specific rank. So, the selected trainees naturally showed a distribution according to the current police manpower composition. This was a very favorable condition for random sampling when selecting a survey target. This is because random sampling is required to prevent distortion of the data distribution (Babbie, 2013). Also, the questionnaire was structured to be suitable for nationwide unit survey. The questionnaire was designed to assess the importance of each item with a 5-point Likert scale and the items to be tested should measure the job stress factors, human relationship factors, work environment factors and external environment factors and so on, to

verify the hypotheses. After designing this study and filling out the questionnaire, the actual questionnaire survey was conducted from April to November in 2019. So, a total of 210 trainee were original survey target. The questionnaire can be found in the appendix.

3.3.2. Data Analysis

Based on data collecting plan, a total of 210 questionnaires were distributed, and 206 were collected, excluding those who did not attend education due to personal circumstances. Among them, 193 copies were used for the final analysis, excluding the questionnaires that answered the questionnaire unfaithfully. The responses in 193 copies were analyzed for construct validity and reliability to evaluate the accuracy of measurement tool and the reliability, and correlation analysis was conducted to analyze the relationship between variables. In addition, T-test and one-way ANOVA were conducted to confirm the difference according to demographic characteristics. Finally, hierarchical regression analysis was conducted to verify the hypotheses of the study. STATA 14 was used as a statistical analysis program.

3.4. Measurement of variables

Detailed questions of the questionnaire for measuring the variables presented above are shown in the table 8 below. In order to verify the validity between the measurement items, a construct

validity analysis and a reliability analysis were performed. After analyzing the construct validity, questions that were not measured as a factor of the variable were removed. In addition, as a result of reliability analysis, the Cronbach alpha coefficient was shown in the table. Although the reliability of welfare items ($\alpha=0.5305$) was somewhat low, it was confirmed that all other items had sufficient reliability.

Table 8. Measurement indicator of variable

Vari able	Factor	Sub- Factor	Questions
I.V.	Job Stress	Role Conflict $\alpha=0.6761$	1. While working at 112 center, there are times when mutually contradictory requests are received from senior agency or boss. 2. While working at 112 center, there are times when I have to work differently from my own judgment. * Questionnaire I-3 was excluded after analysis of construct validity
		Role ambiguity $\alpha=0.7428$	1. As a 112 worker, I know exactly what kind of work I should deal with. (Reverse coding) 2. I know my priorities clearly when dealing with 112 center work. (Reverse coding) * Questionnaire I-6 was excluded after analysis of construct validity

		Role overload $\alpha = 0.7892$	1. While working at 112 center, I always feel like being chased by time. 2. I am doing too much work for one person to do. 3. While working at 112 center, there are times when I feel lack of ability.
	Human Relationship	Relation with boss, colleague and subordinate $\alpha = 0.8024$	1. I have a good conversation with my colleagues at 112. 2. I have a good relationship with my boss, my subordinates and colleagues at 112. * Questionnaire II-1 was excluded after analysis of construct validity.
		Transformational Leadership $\alpha = 0.8997$	1. My immediate boss presents his(her) vision for the future. 2. My immediate boss leads the subordinates by setting an example. 3. My immediate boss respects the personal feelings of his(her) subordinates. 4. My immediate boss encourages me to approach the problem in new ways. * Questionnaire II-8 was excluded after analysis of construct validity
	Work Environment	Promotion $\alpha = 0.7871$	1. 112 center has more opportunities for promotion than other departments.

			<p>2. The number of promotions in the 112 center is appropriate. (including special promotion)</p> <p>* Questionnaire III-2 was excluded after analysis of construct validity</p>
		<p>Discipline $\alpha = 0.7733$</p>	<p>1. Inspection divisions are considering the work characteristics of the 112 center when they inspect 112 center workers. (Reverse coding)</p> <p>2. The level of discipline for the 112 center workers is appropriate. (Reverse coding)</p> <p>3. The disciplinary procedure for the 112 center workers is fair. (Reverse coding)</p>
		<p>Welfare $\alpha = 0.5305$</p>	<p>1. While working at 112 center, night break time is kept well.</p> <p>2. The physical environment of the 112 center is satisfactory. (Office space size, comfort level, etc.)</p> <p>* Questionnaire III-7 was excluded after analysis of construct validity</p>
		<p>Pay $\alpha = 0.7702$</p>	<p>1. The compensation I receive is reasonable when I consider my work (difficulty, quantity).</p> <p>2. I receive the allowance considering the specificity of 112 centers.</p> <p>3. While working at 112 center, I</p>

			am receiving adequate compensation for overtime work.
	External Environment	Trust and respect from citizen $\alpha = 0.8595$	1. Citizens trust 112 police officers. 2. Citizens respect 112 police officers.
		Critical attitudes of the press $\alpha = 0.8779$	1. The press accurately reports 112 police activities. (Reverse coding) 2. The press reports favorably on 112 police activities. (Reverse coding)
D.V.	Job Satisfaction	Single question	When you sum up all the questions so far, how satisfied are you with your current job (112 center)?
C.V.	Demo graphic Factors	Gender	1=Male, 0=Female
		Age	1=in 20s, 2=in 30s, 3=in 40s, 4=in 50s
		Total police career	1=Less than 5 years, 2=5~10 years, 3=10~15 years, 4=15~20 years, 5=20 and Over 20 years
		Total 112 center career	1=Less than 3 years, 2=3~5 years, 3=5~10 years, 4=10~15 years, 5=15 and Over 15 years
		Rank	1=Policeman, 2=Senior Policeman, 3=Assistant Inspector, 4=Inspector,

			5=Senior Inspector, 6=Superintendent	
		Form of recruitment	1=Open recruitment for police officer, 0=Others	
		Final education level	1=high school graduation and less, 2=two-year college graduation and less, 3=four-year university graduation and less 4=graduate school and higher	
		Size of 112 department to which they belong	Provincial Police Agency 112 center	1= Provincial Police Agency 112 center, 0=Others
			First grade Police Station 112 center	1= First grade Police Station 112 center, 0=Others
			Second grade Police Station 112 center	1=Second grade police station 112 center, 0=Others
			Third grade Police Station 112 center	1=Third grade police station 112 center, 0=Others
		Whether to work in Seoul	1=Seoul, 2=Others	

* α = Cronbach's α

Chapter 4. Results and Discussions

4.1. Respondent characteristics

As a result of the survey for this study, the characteristics of respondents are in the following table 9. In addition to the questions for demographic factors, the number of effective respondents at each time was recorded in consideration of the specificity of the survey conducted in seven times.

Table 9. Respondent characteristics

Classification		Frequency	%
Total		193	100
Gender	Male	152	78.8
	Female	41	21.2
Age	20s	14	7.3
	30s	52	26.9
	40s	76	39.4
	50s	51	26.4
Total police career	Less than 5 years	21	10.9
	5 ~ Less than 10 years	36	18.7
	10 ~ Less than 15 years	26	13.5

	15~ Less than 20 years	34	17.6
	20 and over 20 years	76	39.4
112 Total career	Less than 3 years	142	73.6
	3 ~ Less than 5 years	21	10.9
	5 ~ Less than 10 years	21	10.9
	10 ~ Less than 15 years	6	3.1
	15 and over 15 years	3	1.6
Rank	Policeman	6	3.1
	Senior Policeman	37	19.2
	Assistant Inspector	34	17.6
	Inspector	90	46.6
	Senior Inspector	24	12.4
	Superintendent	2	1.0
Form of recruitment	Open recruitment for policeman	190	98.4
	Police university	1	0.5
	Police cadet	0	0
	Special recruitment	1	0.5
	Others	1	0.5
Final education level	High school graduation or less	28	14.5
	Two-year college graduation or less	40	20.7

	Four-year university graduation or less	119	61.7
	Graduate school or higher	6	3.1
Size of the 112 center	Provincial Police Agency 112	99	51.3
	First grade Police Station 112	70	36.3
	Second grade Police Station 112	15	7.8
	Third grade Police Station 112	9	4.7
Region	Seoul	26	13.5
	Busan	15	7.8
	Daegu	9	4.7
	Incheon	9	4.7
	Gwangju	6	3.1
	Daejeon	7	3.6
	Ulsan	7	3.6
	Southern Gyeonggi	19	9.8
	Northern Gyeonggi	12	6.2
	Gangwon	9	4.7
	Chungbuk	9	4.7
	Chungnam	9	4.7
	Sejong ¹⁵	0	0

¹⁵ The Sejong Provincial Police Agency was established during the survey. However, the Sejong Provincial Police Agency is still small in size.

	Jeonbuk	9	4.7
	Jeonnam	12	6.2
	Gyeongbuk	15	7.8
	Gyeongnam	16	8.3
	Jeju	4	2.1
Number of valid respondents per survey	1	27	14.0
	2	27	14.0
	3	27	14.0
	4	29	15.0
	5	26	13.5
	6	28	14.5
	7	29	15.0

In terms of gender, 78.8% were male and 21.2% were female. The 40s was the largest age group with 39.4%, and the 30s and 50s showed similar numbers.

It was found that 39.4% of respondents had more than 20 years of police experience. On the other hand, 73.6% of respondents answered that their total career at 112 center was less than 3 years, and less than 5% of those with more than 10 year experience. This seems to be due to the fact that 112 center has recently hired many new personnel from various departments as its department has expanded rapidly.

Among the respondents, the rank with the highest number was the inspector (46.6%), followed by the senior policeman (19.2%). Most of the respondents' employment path (98.4%) were employed through open recruitment for policeman. 61.7% of the respondents had a final education of less than or equal to a four-year college degree.

Among the 112 centers to which the respondents belonged, 51.3% were provincial police agencies and 48.7% were police stations. If this number is compared with Table 2 presented in Chapter 2, it can be seen that the staff of the 112 center of provincial police agency are overrepresented. From my experience in the field, it seems that if the staff of the police station 112 center, which has a small total number of staff, goes to the training center, they are concerned about the overload of the remaining staff and avoid training. In contrast, provincial police agency workers with a large number of staff participate in education relatively much. Therefore, I think that the overrepresentation of provincial police agency is a part to be careful in the interpretation of research results.

Lastly, regions appeared in the order of Seoul (13.5%) and southern Gyeonggi (9.8%), without any particular bias in region.

4.2. Descriptive statistics

The basic statistics of variables are shown in the table 10 below. The average of dependent variable, 112 police officers' job satisfaction, was 3.17, which is a little over the median value, 3. Among the independent variables, the critical attitude of press had the highest average of 4.04, followed by the positive relationship at work (4.01). We can say that police officer at 112 center recognized that the media was reporting from the perspective of criticizing the police rather than from the perspective of understanding the situation of the police. Also, the average of 4.01 in positive relationship in the workplace indicated satisfactory and warm working atmosphere among employees at 112 center.

In contrast, the index indicating whether working at 112 centers is beneficial for promotion was the lowest with an average of 1.97. This means that 112 workers had a perception that working in 112 center is not advantageous for their promotion.

Table 10. Descriptive statistics

Classification	Variable	No	Mean	S.D.	Min	Max
Dependent Variable	Job Satisfaction	193	3.17	0.73	1	5

Independent Variable	Role Conflict	193	2.96	0.91	1	5
	Role Ambiguity	193	2.15	0.64	1	4
	Role Overload	193	3.24	0.81	1.33	5
	Positive relationship in the workplace	193	4.01	0.69	2	5
	Transformational Leadership	193	3.56	0.77	1.25	5
	Advantages to Promotion	193	1.97	0.70	1	4
	Irrationality of Discipline	193	3.46	0.68	2	5
	Welfare Satisfaction	193	3.14	0.92	1	5
	Pay Satisfaction	193	2.68	0.79	1	4.67
	Respect from citizen	193	2.75	0.80	1	5
	Press's critical attitude	193	4.04	0.71	1	5
Control Variable	Gender (1=male)	193	0.79	0.41	0	1
	Age range	193	2.85	0.90	1	4
	Total Police Career	193	3.56	1.44	1	5
	112 Total Career	193	1.48	0.92	1	5
	Rank	193	3.49	1.07	1	6
	Recruit form	192	0.99	0.10	0	1
	Education	193	2.53	0.78	1	4

	Local 112	193	0.51	0.50	0	1
	First112	193	0.36	0.48	0	1
	Second112	193	0.08	0.27	0	1
	Third112	193	0.05	0.21	0	1
	Workplace (1=Seoul)	193	0.13	0.34	0	1

Next, the correlation between variables was analyzed. The following table 11 shows the correlation analysis between variables. Demographic variables were excluded from the table due to the size limitation of the table. As a result of correlation analysis, there was a significant correlation between 11 independent variables and job satisfaction, a dependent variable. In particular, the correlation between pay satisfaction and job satisfaction was 0.47. This is the highest value among the correlations between the variables in this study. Although not shown in the table, among the demographic factors, gender was the only one that had a statistically significant correlation with job satisfaction.

Table 11. Correlations between Variables

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) JS	1											
(2) Role CONF	-.39**	1										
(3) Role AMB	-.22**	.25**	1									
(4) Role OVER	-.36**	.34**	.22**	1								
(5) Posi RELA	.22**	-.17*	-.37**	-.22**	1							
(6) Trans LEAD ER	.31**	-.38**	-.24**	-.21**	.51**	1						

(7) PROM O	.16*	-.24**	.11	-.11	.05	.15*	1					
(8) DISCI	-.30**	.39**	.04	.29**	-.21**	-.36**	-.43**	1				
(9) WELF A	.38**	-.40**	-.11	-.31**	.20**	.26**	.17*	-.32**	1			
(10) PAY	.47**	-.32**	-.06	-.28**	.09	.18*	.29**	-.31**	.46**	1		
(11) CITIZ EN	.29**	-.18*	-.21**	-.15*	.15*	.12	.13	-.18*	.05	.22**	1	
(12) PRES S	-.26**	.27**	.08	.17*	-.10	-.19**	-.34**	.36**	-.09	-.27**	-.46**	1

*p<.05, **p<.01

Variable name (Abbreviation) (1) JS: Job satisfaction (2) Role CONF: Role conflict (3) Role AMB: Role ambiguity (4) Role OVER: Role overload (5) Posi RELA: Positive relationship with boss, colleague and subordinate (6) Trans LEADER: Transformational leadership of immediate supervisor (7) PROMO: Advantages to promotion (8) DISCI: Irrationality of discipline (9) WELFA: Welfare satisfaction (10) PAY: Satisfaction with pay (11) CITIZEN: Trust and respect of the citizens on the police (12) PRESS: Critical attitudes of the press

4.3. Comparative analysis by group

T-analysis and one-way ANOVA were conducted to find out the difference in job satisfaction of police officer at 112 center according to demographic characteristics.

Among them, I examined a few things that are thought to be meaningful to job satisfaction of 112 center workers.

4.3.1. Gender and 112 job satisfaction

Table 12 shows 112 job satisfaction levels by gender. The job satisfaction of 112 police officers according to gender was significant with a significance probability of 0.0003. Compared to the male police officers working at 112, the average value of female police officers was significantly lower. It is presumed that the special nature of 112 center, such as frequent night shifts, urgent situation handling and stress from abnormal phone calls (ex. abusive language, sexual harassment, etc.), placed a burden on female police officers. However, more in-depth research is needed on the factors that cause gender differences in 112 job satisfaction.

Table 12. Gender and 112 Job Satisfaction

Gender	Mean	Standard Deviation	Frequency	t	p-value
Male	3.27	0.66	152	-3.72	0.0003
Female	2.80	0.87	41		

4.3.2. 112 total career and 112 job satisfaction

The result of comparing 112 total career and job satisfaction is shown in the table 13 below. When 112 job experience is less than 3 years, the job satisfaction level is 3.10. When they have 3–5 year work experience in 112, their job satisfaction is the highest at 3.52. After that, the level of satisfaction tends to decrease slightly as careers are accumulated.

It can be interpreted that the new workers at 112 center gained confidence as they became accustomed to their job after three years, resulting in the highest job satisfaction. In addition, the decrease in job satisfaction among long-term employees means that employees who are familiar with 112 tasks may not recognize 112 as an attractive department and want to leave 112 center, so measures are needed. So, it is necessary to maintain high job satisfaction through appropriate adaptation training for new transferees and motivation for long-term workers.

Table 13. 112 total career and 112 Job Satisfaction

112 total career	Mean	S.D.	Frequency	F	p-value
Less than 3 years	3.10	0.66	142	3.18	0.0148
3~5 years	3.52	0.75	21		
5~10years	3.38	0.92	21		
10~15years	3.33	0.52	6		
Over 15 years	2.33	1.58	3		

4.3.3. Rank and 112 job satisfaction

As shown in the table 14 below, the average of job satisfaction by rank is concentrated in the early 3 points range. There is also no tendency to rise or fall as rank rises. However, it seems that the job satisfaction level of superintendent is high at 4.0, but it is difficult to generalize because the samples of superintendent are only two. Also, as a whole, the p value for rank and 112 job satisfaction is 0.1936, which cannot be said to be statistically significant.

Table 14. Rank and 112 Job Satisfaction

Rank	Mean	Standard Deviation	Frequency	F	p-value
Policeman	3	0	6	1.49	0.1936
Senior Policeman	3	0.62	37		
Assistant Inspector	3.35	0.77	34		
Inspector	3.19	0.78	90		
Senior Inspector	3.08	0.72	24		
Superintendent	4	0	2		

4.3.4. Size of 112 center and 112 job satisfaction

The job satisfaction was compared according to the size of their belonging 112 center, and p-value for that was 0.2040, which was not statistically significant. The group average also showed similar levels within the range of 3 to 3.3. Often, it can be thought that working places with a lot of 112 reports, such as provincial police agency and first-class police station, would have low job satisfaction due to the burden of work, but this table 15 shows that it is not true. It can be interpreted that various factors, such as the benefits of city life and children's education, are affecting the job satisfaction of 112 police officers.

Table 15. Size of 112 center and 112 job satisfaction

The size of 112 center	Mean	Standard Deviation	Frequency	F	p-value
Provincial police agency	3.10	0.73	99	1.55	0.2040
First grade police station	3.3	0.73	70		
Second grade police station	3	0.85	15		
Third grade police station	3.33	0.5	9		

4.4. Regression analysis

4.4.1. Hierarchical Regression Analysis

In this study, independent variables affecting job satisfaction of police officer in 112 center are largely classified into job stress, human relationship, work environment and external environment. Based on these categories, four analysis models were created. Hierarchical regression analysis was performed including control variables. Demographic factors were treated as control variables. In addition, since the survey was conducted in 7 times, it was controlled. The table 16 below shows the results of hierarchical regression analysis.

First, looking at Model 1, the control variables and job stress factors account for 29.87% of job satisfaction of 112 policemen. Among job stress factors, role conflict ($t=-4.27$) and role overload ($t=-3.67$) were found to have a negative effect on 112 job satisfaction. Role ambiguity showed no statistically significant influence on job satisfaction.

Next, Model 2 is the result of regression analysis by adding human relationship factors to Model 1. Model 2 explains 31.46% of the job satisfaction variance. This is about 1.59% more explaining than Model 1. Role conflict ($t=-3.61$) and role overload ($t=-3.54$) showed a negative relationship to job satisfaction. It was found that the positive relationship with the boss, subordinates, and colleagues ($t=0.43$) and the transformational leadership of immediate

supervisor ($t=1.50$) did not affect job satisfaction under the statistical significance level. In other words, the added human relations factors did not have a statistically significant effect on job satisfaction.

Model 3 was analyzed by adding advantages of promotion, the irrationality of discipline activities, welfare satisfaction, and satisfaction with pay to Model 2. This model accounts for 42.63% of the variance of job satisfaction. Compared to Model 2, this explains 11.17% more. The most significant factor under this model was the satisfaction with pay ($t=4.64$). This shows that satisfaction with pay has a positive influence on job satisfaction at the 0.01 significance level. Under this model, the statistical significance probability of role conflict ($t=-1.89$) and role overload ($t=-2.34$) increased, respectively. Other factors were found to have no effect on job satisfaction at the level of statistical significance.

Model 4 is the addition of external environment factors such as trust and respect of citizens on 112, and critical attitude of the media on 112. This model accounts for 44.12% of the total job satisfaction variance. This explains 1.49% more than the Model 3. Among independent variables under Model 4, the satisfaction with pay ($t=4.33$) was found to have the most positive effect on the dependent variable. Next, it was found that role overload ($t=-2.27$) and role conflict ($t=-1.65$) were statistically significant under a greater probability of significance. Other independent variables had no statistically significant influence on job satisfaction.

Table 16. Hierarchical Regression Analysis

Model(모형)		Model1			Model2			Model3			Model4		
		β	S. E.	t	β	S. E.	t	β	S. E.	t	β	S.E.	t
Control Variables	Male	.19**	.13	2.58	.18*	.13	2.48	.20**	.13	2.87	.18**	.13	2.62
	Age	-.18	.12	-1.21	-.17	.12	-1.14	-.25†	.11	-1.81	-.22	.11	-1.59
	Police TC	.02	.09	.13	.04	.09	.23	.26	.09	1.56	.21	.09	1.20
	112 TC	.06	.06	.82	.08	.06	.99	.05	.06	.65	.06	.06	.83
	Rank	.10	.09	.79	.08	.09	.64	-.09	.08	-.73	-.12	.09	-.94
	Recruit form	-.07	.50	-1.03	-.06	.50	-.87	-.05	.46	-.71	-.06	.46	-.94
	Education	-.02	.06	-.25	.01	.07	.09	-.02	.06	-.25	-.04	.06	-.56
	Local112	-.14	.25	-.84	-.16	.25	-.94	-.14	.24	-.87	-.08	.24	-.46
	First112	-.07	.24	-.43	-.08	.24	-.53	-.05	.23	-.32	.00	.23	.00
	Second112	-.10	.29	-.92	-.09	.29	-.89	-.05	.27	-.46	-.02	.27	-.16
	Seoul	.03	.14	.52	.04	.14	.57	.01	.14	.08	.01	.13	.11
Job Stress Variables	Role CONF	-.31**	.06	-4.27	-.28**	.06	-3.61	-.15†	.06	-1.89	-.13†	.06	-1.65
	Role AMB	-.07	.09	-.90	-.03	.09	-.40	-.09	.09	-1.18	-.07	.09	-.94
	Role OVER	-.27**	.07	-3.67	-.26**	.07	-3.54	-.17*	.06	-2.34	-.16*	.06	-2.27
Human Relationship Variables	Posi RELA				.04	.09	.43	.01	.08	.18	.01	.08	.11
	Trans LEADER				.12	.08	1.50	.10	.07	1.30	.09	.07	1.24

Work Environment Variables	PROMO							.05	.08	.66	.00	.08	-.03
	DISCI							-.03	.09	-.37	.00	.09	-.05
	WELFA							.07	.06	.86	.09	.06	1.15
	PAY							.34**	.07	4.64	.32**	.07	4.33
External Environment Variables	CITIZEN										.09	.07	1.23
	PRESS										-.10	.08	-1.21
Time Series Variable included		Yes			Yes			Yes			Yes		
N		192			192			192			192		
R ²		0.2987			0.3146			0.4263			0.4412		
adj-R ²		0.2167			0.2253			0.3359			0.3452		
†p<0.1, *p<0.05, **p<0.01													

Variable name (Abbreviation)

TC: Total Career / Role CONF: Role conflict / Role AMB: Role ambiguity / Role OVER: Role overload / Posi REL: Positive relationship with boss, colleague and subordinate / Trans LEADER: Transformational leadership of immediate supervisor / PROMO: Advantages to promotion / DISCI: Irrationality of discipline / WELFA: Welfare satisfaction / PAY: Satisfaction with pay / CITIZEN: Trust and respect of the citizens on 112 police / PRESS: Critical attitudes of the press on 112 police

4.4.2. Discussion

4.4.2.1. The meaning of hierarchical regression analysis result

As a result of hierarchical regression analysis, the following points were found.

First, satisfaction with pay was found to be the most influential independent variable on job satisfaction of police officer at 112 center. Satisfaction with pay was the only one among 11 independent variables that had a significant probability within the range of 0.01. In other words, it can be seen that 112 center employees are most affected by job satisfaction through economic rewards for their work. This result that satisfaction with pay has the greatest effect on the job satisfaction of police officers at 112 center shows that police officers in 112 center have a different type of major job satisfaction factor than other types of police such as investigative police and local police. As previously mentioned, in the case of patrol police in metropolitan areas, the perception that they receive trust and respect from citizens has the most influence on job satisfaction (Hwang, 2008). Psychological exhaustion was the most influential factor among the investigative police officers of the economic team (Song, 2015). In addition, the result is contrary to Herzberg (1968)'s assertion that wage is merely a hygiene factor that eliminates job dissatisfaction and does not directly bring job satisfaction. Human needs show a variety of individual differences, and the problem of Herzberg's assertion which did not consider this difference was reconfirmed through this study.

Second, the second influential factor that affects job satisfaction of 112 center worker was role overload. In this study, job stress factors were measured by dividing into role conflict, role ambiguity, and role overload. However, role conflict and role ambiguity during work were found to have no statistical significance in this study. Role overload occurs by assigning too many tasks to the same person in a short time. It also occurs when demanding excessive capabilities than workers' capabilities. The results show that 112 workers feel burdened in handling important incidents that are intensively received simultaneously during the vulnerable time of crime, which negatively affects job satisfaction.

Third, when the significance level range is expanded to 0.1, role conflict can be seen as a factor that has some influence on job satisfaction. Although the significance level is somewhat large, role conflict among job stress factors, is interpreted as having a negative effect on job satisfaction of 112 workers.

As a result of the regression analysis, the other eight independent variables such as role ambiguity, positive relationship with boss, colleagues and subordinates, welfare satisfaction and so on, did not have statistical significance in job satisfaction of workers at 112 centers^⑯. However, it should be noted that even if they did not have statistical significance in this study, it only means that the possibility of generalization is insufficient.

^⑯ At a significance level of 0.05, 9 independent variables do not have significant statistical significance for the dependent variable.

4.4.2.2. Interview with the 112 center police officer

In order to understand the results of this regression analysis more three-dimensionally, telephone interviews were conducted with police officers who are currently working in the 112 center or worked until recently at the 112 center. Interviewees have the characteristics shown in the table 17 below. The telephone interview took place on October 31 and November 6, 2020. I asked the interviewees about the motives for working at the 112 center, the factors of job satisfaction and dissatisfaction felt while working at the 112 center, and the reason for moving to another departments.

Table 17. Characteristics of the interviewee

Code	112 Total Career	Rank	Workplace and Position at 112 center	Age Range	Interview Date
Police A	15	Senior Inspector	First grade police station, Team member Team leader	50s	10/31
Police B	2	Assistant Inspector	First grade police station, Team member	40s	10/31

Police C	1	Superintendent	Provincial Police Agency, Team leader	40s	11/6
Police D	11	Inspector	First grade police station, Team member	50s	11/6

Police A is a police officer who has worked as a team member in the 112 center for about 15 years in Daegu and continues to work as 112 team leader after promotion this year. Regarding the reason for working 112 for a long time, he said that the stress factor dealing with an urgent situation was initially high, but, after a certain adjusting time, work stress decreased. In other words, unlike other departments such as the investigation department, he liked the 112 center work in that there was no personal work to be concerned with after work. He pointed out that 112 centers are getting bigger in size and better in working conditions than in the past, but there are still many things for improvement such as allowances.

Police B said that after working on district patrol team, he applied to the 112 center of the police station in order to understand the overall view of police work. He said that when he started work at 112 center, he was overwhelmed by the importance of the 112 center's duty and he felt a lot of pressure for several

months. However, after working for about two years, he said that he has become more comfortable and confident in his work. In addition, he thought that his 2 years of working at 112 center would be a great help to his remaining police career. However, he moved to another department this year. He explained why he changed the work department by considering the fact that in two years he learned about 112 center work to some extent, and that the economic treatment was not as good as that of other departments. He said that the salary varies depending on the amount of overtime, but in general, 112 centers pay less than other departments.

Police C is a police officer who was transferred from Seoul to the provincial police agency after being promoted and worked as the 112 team leader there for one year. He evaluated that the work experience at 112 center was an opportunity to deeply feel and learn the importance of dealing with the 112 case, because he worked mainly in the intelligence division in the past. He recalled his one year of working in the tense state of 112 center as a great stress for him in that he did not know when an important and serious event would happen. In addition, he said that working as the 112 team leader at the provincial police agency, he felt a pity that the team members who worked hard did not seem to receive sufficient economic compensation. He pointed out that even compared to the intelligence division he had worked for a long time, the financial compensation for 112 center was weak and needed to be improved.

Police D has been working as a member of the 112 center

situation monitoring team and management team at the police station for 11 years. Prior to the 112 center, he worked as a subway police officer. He also said that the biggest advantage of 112 center is that if he focuses only on working hours, he can have free personal time after work. However, he said that it is true that the allowance for 112 center is lower than other departments, and it is financially burdensome to raise children.

In summary, interviewees said that they all recognized the importance of 112 center, and that working experience at 112 center was of great help in understanding the overall work of the police. And, although 112 center work was somewhat burdensome at first, they gradually got used to it. After that time, if they concentrate on processing within working hours, they have no remaining tasks and feel less stressed. However, most of the interviewees expressed the opinion that police officers at 112 center were not paid appropriate allowances compared to the job stress and intensity of work from the job itself, and that the allowance was relatively low compared to other departments. These seemed to be the cause of the shift to other departments. These interviews were largely in line with the results of this study's survey.

4.4.2.3. Comparison of job satisfaction factors of private call centers and the results of this study

In a broader framework, 112 centers have similar aspects to private call centers in that they receive calls and process their work

based on them, so I compared the job satisfaction factors of private call centers with my research results. Recently, many companies are operating call centers for the purpose of managing customer complaints, strengthening communication with customers, and maintaining royalties and the number of call center workers is increasing day by day regardless of the private and public sectors (Woo & Shin, 2010).

Choi (2009) studied the relationship between internal service quality and job satisfaction of counselors for airline call centers. As a result of a survey of 300 counselors, it was analyzed that tangibility, reliability, authority, and leadership had a great effect on the job satisfaction of the counselors. Based on this, she made several suggestions to increase the job satisfaction of counselors. First, the managers must prioritize the establishment of call center facilities, equipment, and systems. Second, management is necessary to become a reliable company. Third, the counselor must be guaranteed sufficient authority for customer service. Fourth, the counselor's ability must be strengthened with the continuous interest of the management. Her finding that physical facilities, equipment, and system construction are important factors for counselor's job satisfaction, is different from the research results of my study. I think that this is because the police organization has already established a unified system nationwide as an important national organization, and physical facilities and equipment themselves are already convenient enough for individual

police officers to use.

In a similar study, Woo and Shin (2010) analyzed surveys of 455 domestic counselors and found that access to the system and information format in the call center environment had the greatest impact on the quality of the information system and their job satisfaction. According to them, since call center agents work in an environment where they have to use the information system continuously all day long, they are very sensitive to how convenient the system is to use. However, in most cases, a 112 caller does not ask a 112 worker for the same level of solution, as the customer requesting a private counseling, but simply request a prompt dispatch of the field police. Therefore, this difference is thought to cause the difference that determines the satisfaction factor between 112 centers and private call centers.

Cho and Yang (2010) analyzed that the exhaustion of emotions of call center counselors negatively affected job satisfaction with 157 questionnaires collected from call center counselors in Seoul. Based on this, they suggested that there was a need for an alternative that can reduce the burden on time and secure autonomy in work. These results seem to be in line with the job stress of 112 workers due to role overload in my research results. Not only private call center counselors but also 112 workers in the public sector are considered to be experiencing stress due to exhaustion of emotions and overloading roles in the process of meeting the increasing demands of citizens.

Shin and Kim (2016) analyzed that there was a significant negative correlation between job stress of call center employees and job satisfaction through a survey analysis of 200 employees of call centers in Daegu. It was revealed that there was a high correlation in job autonomy, relationship conflict, job insecurity, organizational structure, and inadequate compensation set as sub-factors of job stress. In particular, they suggested an alternative that efforts to convert the non-regular employments to regular ones were necessary, considering that most call center workers were contract workers. The point that inadequate compensation was presented as a negative factor for job satisfaction was consistent with my research results, but the difference was that other factors also showed high correlations at the same time.

As described above, the job satisfaction factors of private call center counselors were compared with those of 112 center workers. In the case of private call centers, it was interesting to note that the accessibility and convenience of the system had a great influence on the job satisfaction of the counselors in that they had to promptly resolve various counseling from customers. In addition, for all of the private call centers and 112 workers, it can be said that job stress factors, including emotional burnout and role overload, have a negative correlation to job satisfaction.

However, it was somewhat difficult to compare which factors were more significant for job satisfaction in terms of research results only, since each individual study only set factors

that the researcher judged as meaningful as independent variables. Therefore, in the future study, if the same job satisfaction factors are set as independent variables at the same time, it will be a more meaningful comparative study of the job satisfaction of private call centers and 112 center workers. By doing so, it will be possible to more objectively compare how the characteristics of 112 centers, which are distinct from private call centers, affect the job satisfaction of 112 workers.

4.4.2.4. Question on the results of this regression analysis and suggestion for future research

Satisfaction with pay and role overload can be interpreted as the two most influential factors on job satisfaction of the 112 center police officers in this study. In particular, unlike the results of previous research on job satisfaction of other police departments, the feature of this study is that satisfaction with pay is presented as the most influential factor of job satisfaction for 112 center worker.

Here, it is natural to wonder why satisfaction with pay is so important to 112 emergency dispatch center police officers. Why did the monetary factor become the most significant factor in their job satisfaction? Although it is impossible to clarify the actual cause by this study alone, the following reasoning is possible in light of my experience of over 6 years working at 112. The 112 emergency dispatch center was strengthened with personnel and physical support after the Suwon murder in 2012. For this reason, from the point of view of actual workers, stricter supervision and higher

level of work processing were required than ever in the past. However, little improvement in economic compensation for these burdens has been made. Also, independent allowances reflecting the characteristics of 112 center such as 'urgency', 'concurrency', have not been prepared yet. This incongruity made 112 police officers feel economically alienated compared to when they worked in other departments. In the end, this mismatch is believed to have been inherent in 112 center workers for a significant period of time and negatively impact their job satisfaction.

However, as this reasoning is based on the subjective judgment of the researcher, detailed follow-up studies are needed on the process in which the salary satisfaction of the police officers at 112 center affects job satisfaction in the future. In addition, it is necessary to understand the job satisfaction factors in detail by asking more questions about the cause of the remaining nine factors set as independent variables that did not have a significant effect. This is because the number of questionnaire questions was somewhat insufficient in this study, and there was a limit to sufficiently grasping one factor.

4.4.3. Hypotheses test result

Now, I compared the hypotheses presented earlier with the results of this survey analysis. In this study, the factors influencing the job satisfaction of police officer in 112 center were largely classified into four categories: job stress, human relationship, work environment, and external environment. Based on this, I made 11

hypotheses. Consequently, the test results of each hypothesis are shown in the table 17 below. Two hypotheses were adopted among the proposed hypotheses within the range of the significance probability of 0.05.

Table 18. Hypotheses test result

No	Hypothesis	Result
1	Role conflict will have <u>negative</u> effects on job satisfaction of police officers in 112 center.	Rejection ^⑰
2	Role ambiguity will have a <u>negative</u> effect on the job satisfaction of police officers in 112 center.	Rejection
3	Role overload will have a <u>negative</u> impact on the job satisfaction of police officers in 112 center.	Adoption (*)
4	The positive relationships in the workplace will have a <u>positive</u> impact on the job satisfaction of police officers in 112 center.	Rejection

^⑰ If you look at the significance level broadly to the 0.1 range, it can be classified as adoption.

5	The transformational leadership of direct supervisors will have a <u>positive</u> effect on the job satisfaction of police officers in 112 center.	Rejection
6	Advantages to promotion will have a <u>positive</u> effect on job satisfaction of police officers in 112 center.	Rejection
7	The irrationality of discipline will have a <u>negative</u> impact on the job satisfaction of police officers in 112 center.	Rejection
8	Welfare satisfaction will have a <u>positive</u> effect on the job satisfaction of police officers in 112 center.	Rejection
9	Satisfaction with pay will have a <u>positive</u> effect on the job satisfaction of police officers in 112 center.	Adoption (**)
10	The trust and respect from citizens on the police will have a <u>positive</u> impact on the job satisfaction of police officers in 112 center.	Rejection
11	The critical attitude of the press to the police will have a <u>negative</u> impact on the job satisfaction of police officers in 112 center.	Rejection

*p<0.05, **p<0.01

Chapter 5. Conclusion

5.1. Summary of Research Results

The 112 emergency response center, like the nickname 'Citizen' s Emergency Bell' , performs an important function that is directly connected to the safety of the people. As the importance of the initial police action is increasingly recognized, interest in the 112 Center is increasing, and research on the 112 system and 112 response improvement is also actively conducted.

However, this study began with the recognition that there was a lack of research on job satisfaction for police officers working at 112 centers. Although there is controversy over whether employees with high job satisfaction actually perform high, efforts by various organizations to increase job satisfaction and improve job performance are continuing and valid. Likewise, as the importance of the 112 Center' s initial actions grows, it is meaningful that improving job performance by increasing job satisfaction for 112 workers can be a shortcut to a safe society. In this regard, the purpose of this study is to find the most important factors influencing the job satisfaction of police officers at 112 emergency dispatch centers, and to present policy directions that can improve job satisfaction.

As mentioned in the text, the factors of police job satisfaction were identified through prior research on police job

satisfaction and classified into job stress factors, human relationship factors, work environment factors, and external environment factors. After that, job stress was divided into role conflict, role ambiguity, and role overload, and human relationship factors consisted of positive relationships with supervisors, colleagues, and subordinates and transformational leadership of direct supervisors. The working environment factors were composed of advantages to promotion, irrationality of discipline, satisfaction with pay, and welfare satisfaction. External environment factors were citizens' trust and respect for 112 police, and the media's critical attitude toward 112 police. Based on this framework, a questionnaire survey was formed. A total of 210 copies were distributed to the trainees admitted to the Police Human Resources Development Institute, and 193 copies of the collected questionnaires were used for final analysis.

As final result of the analysis, the most influential factor on the job satisfaction of the 112 emergency dispatch center was satisfaction with pay, followed by role overload. The remaining independent variables were not statistically significant for 112 police officers' job satisfaction.

5.2. Policy Suggestions and Limitations

5.2.1. Policy suggestions

As a result of this study, the factor that has the most significant influence on job satisfaction of police officer in 112 center was satisfaction with pay among work environment factors, and role overload among job stress factors was shown next. Other factors did not have statistical significance. Based on this, I would like to make policy suggestions as follows.

5.2.1.1. Increase the basic salary of the police and promote the 112 special allowance

First of all, to increase the job satisfaction of 112 center, fair and sufficient compensation for their hard work is necessary. The average of the survey respondents' satisfaction with compensation was 2.68^⑱ points, which is less than the average (3 points). This dissatisfaction was linked to job satisfaction, and the statistical analysis revealed that it had the most influence on job satisfaction of 112 employees.

Since police officials have a fixed base salary according to their rank and years of service, it is basically necessary to raise the base salary itself, which is set lower than that of other public security positions^⑲ (ex. National Intelligence Service).

Also, their dissatisfaction is related to the allowance they receive at 112 center. The importance of the 112 center is

^⑱ The average of respondents' satisfaction with pay can be found in descriptive analysis.

^⑲ It was reported that the basic salary of the police was set at an average of 4.4% lower than that of other public security positions. (<https://www.nocutnews.co.kr/news/5432236>, Retrieved on October 22, 2020)

frequently emphasized as the ‘emergency bell of the people’, but the police officers working there do not receive allowances reflecting such characteristics. For example, let’s take a look at the ‘112 dispatch allowance’, which was newly established in 2016. The name of this allowance seems to be for 112 center workers, but it is not. The 112 dispatch allowance is money which an additional 3,000 won is paid for each dispatch in case of emergency dispatch to deal with important criminal cases according to the 112 report during the night shift (only from 10 PM to 6 AM the next day). However, this allowance is mainly targeted at district patrol teams, and the 112 center employees who receive 112 reports are not eligible for this allowance. So, it is necessary to expand the target of payment to the 112 center police by securing more budget.

One step more, according to Park (2016: 146), 112 report should be processed organically in ‘112 report reception – ordering of dispatch – deployment on site’. In this process, he proposed to make special allowances that consider the specificity of the reception and dispatch stage to promote 112 workers’ morale. In connection with the results of this study, I think that Park’s proposal is a very considerable idea to boost morale of workers at 112 center. Considering the tension and stress that workers receive during the emergency report filing stage, it is reasonable to establish a new allowance for their special hard work.

5.2.1.2. Reasonable staffing to resolve role overload

The analysis results require solving the role overload

problem among job stress factors. Job overload refers to whether you are running out of time while performing a task, performing too many tasks for one person to perform, or whether you are asked for more than your ability while performing tasks.

In order to solve the problem of role overload, it is urgent to secure a reasonable manpower enough to properly handle the report cases which are increasing both quantitatively and qualitatively. Rather than simply encouraging efficient business processing, it is necessary to establish standards that can be handled per worker, and manpower should be allocated accordingly. In this case, the strategic and scientific job analysis should be preceded. Job analysis is to determine and clarify the nature of the job by analyzing the job and the work performed, and through this, it reveals what kind of work type is necessary and how much (Pynes, 2013). To solve the 112 center's role overload problem, a scientific job analysis must be performed. Based on that, proper amount of work that can be handled without role overload per police officer of 112 center must be allocated, and, if necessary, personnel must be readjusted accordingly.

5.2.1.3. Resolution of role conflict

When the regression analysis result of this study was expanded to the significance level of 0.1, role conflict was also a factor that influenced job satisfaction. Role conflicts arise when the same worker has contradictory demands. For example, a role conflict arises when there is a disagreement between the provincial

police agency and the police station on how to deal with an emergency situation. This is because 112 police workers on site must follow both orders. A role conflict also can arise when there is a supervisor' s instruction which is completely different from the worker' s judgment regarding the handling of emergency reports.

To solve this problem, the operation manual must be very specific so that the worker at 112 center can easily understand the task of each situation. In addition, when complex and difficult situations arise, a working atmosphere that respects worker' s judgment in that situation is needed, without leaving workers responsible for the results.

5.2.2. Limitations

There are several limitations in this study.

The first one is the limitation of the questionnaire writing method. When I created the questionnaire of this study, my first concern is the convenience of police officers who responded to the questionnaire. This is largely due to my personal experience in which it was difficult to answer sincerely if there were too many questions when responding to a survey while working as a police officer. So, I focused on reducing the number of questions that are similar or repetitive from the respondent' s perspective. However, my intentions have caused the problem of mono method bias. In this regard, Babbie (2013) suggested that when we write questions, we should carefully review the purpose of the study and construct questions that are useful for this purpose. He emphasized that if we

are in doubt what is the best question, we should ask multiple questions rather than a single one. As a result, some difficulties occurred in the process of analyzing the questionnaire. In other words, by asking a few more specific questions about each independent variable and dependent variable, I should have considered the various aspects in relation to the variable. In particular, the measurement of job satisfaction, the dependent variable of this study, was treated as a single question. However, many scholars point out that one question is insufficient to filter these measurement errors due to the respondent's transient mood, prejudice, and misunderstanding of the question (Babbie, 2013). Therefore, the results of this study should be interpreted in light of this limitation.

The second one is the limitation of sampling. This study surveyed 210 of the more than 3800 workers at 112 centers nationwide, but the number of samples was not sufficient. In addition, an educational institution was used due to the difficulty and inaccuracy of the questionnaire survey at the workplace. However, for that reason, the survey was not conducted at once and was divided into 7 times. By doing this, it was affected by the time variable, although it was controlled during the analysis. In future studies, I think that collecting a wide range of data at a time for a sufficient number of police officers in 112 centers will increase the accuracy of job satisfaction.

Lastly, in the 112 job satisfaction survey in this study, detailed factors that utilized unique characteristics of 112 center

were not discovered, and only general job satisfaction factors were used. Due to the limitations of individual research, it was difficult to find the unique job satisfaction factor of 112 center, and in order to secure the validity of the study, it was necessary to construct an independent variables by utilizing already verified factors. In future studies, it is necessary to study job satisfaction of 112 center by adding more diverse and unique variables at the level of the National Police Agency.

Despite of all these limitations, considering the reality that there are little job satisfaction studies for police officers at 112 center, this study has a value as an initial job satisfaction study for them. In this study, it is meaningful that by applying various variables of the existing police job satisfaction to 112 police, it was found that satisfaction with pay and role overload were significantly related to job satisfaction for 112 policemen. Based on this research, I hope more research will be conducted on the police officers working at 112 centers. Raising the interest and job satisfaction of police officers at 112 center is not just about increasing job satisfaction for specific department workers, it is a good way to improve the quality of initial police response.

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Appendix

* The actual survey was conducted
in Korean for the convenience of respondents.

A study on the Factors Affecting Job Satisfaction of Police Officers in 112 Emergency Dispatch Center

Hello.

My name is Jinhyuk We.

I am studying on the above topic at the Graduate School of Public Administration, Seoul National University. The purpose of this survey is to investigate the factors affecting job satisfaction of police officers working in 112 Emergency dispatch center, and to establish the desirable policing policy based on this survey result.

In addition, the survey will be carried out under anonymity and confidentiality will be guaranteed. Also, the results of the research will not be used for any purpose other than the research results.

I would be most grateful if you could be honest and sincere to answer this questionnaire. Thank you very much.

Global Public Administration Major
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(Instructions) There is no fixed answer for each question in this questionnaire. Also, you do not have to choose what others think is desirable.

I. Below are questions about job stress factors.

Please mark the appropriate option number.

N	Question	strongly disagree	somewhat disagree	neutral	somewhat agree	strongly agree
1	While working at 112 center, there are times when mutually contradictory requests are received from senior agency or boss.	①	②	③	④	⑤
2	While working at 112 center, there are times when I have to work differently from my own judgment.	①	②	③	④	⑤
3	While working at 112 center, there are times when I need to do more than two thing at the same time.	①	②	③	④	⑤
4	As a 112 worker, I know exactly what kind of work I should deal with.	①	②	③	④	⑤

5	I know my priorities clearly when dealing with 112 center work.	①	②	③	④	⑤
6	When new tasks are given to me, I know where to start and how to handle them.	①	②	③	④	⑤
7	While working at 112 center, I always feel like being chased by time.	①	②	③	④	⑤
8	I am doing too much work for one person to do.	①	②	③	④	⑤
9	While working at 112 center, there are times when I feel lack of ability.	①	②	③	④	⑤

II. Below are questions about human relationship factors.

Please mark the appropriate option number.

N	Question	strongly disagree	somewhat disagree	neutral	somewhat agree	strongly agree
1	The communication between my superiors, colleagues and subordinates in the 112 organizations I belong to is smooth.	①	②	③	④	⑤

2	I have a good conversation with my colleagues at 112.	①	②	③	④	⑤
3	I have a good relationship with my boss, my subordinates and colleagues at 112.	①	②	③	④	⑤
4	My immediate boss presents his(her) vision for the future.	①	②	③	④	⑤
5	My immediate boss leads the men by setting an example.	①	②	③	④	⑤
6	My immediate boss respects the personal feelings of his(her) men.	①	②	③	④	⑤
7	My immediate boss encourages me to approach the problem in new ways.	①	②	③	④	⑤
8	My immediate boss has high expectations for his(her) subordinates.	①	②	③	④	⑤

III. Below are questions about work environment factors.

Please mark the appropriate option number.

N	Question	strongly disagree	somewhat disagree	neutral	somewhat agree	strongly agree
1	112 center has more opportunities for promotion than other departments.	①	②	③	④	⑤
2	I would like to work longer in the 112 center for promotion.	①	②	③	④	⑤
3	The number of promotions in the 112 center is appropriate. (including special promotion)	①	②	③	④	⑤
4	Inspection divisions are considering the work characteristics of the 112 center when they inspect 112 center workers.	①	②	③	④	⑤
5	The level of discipline for the 112 center workers is appropriate.	①	②	③	④	⑤

6	The disciplinary procedure for the 112 center workers is fair.	①	②	③	④	⑤
7	While working at 112 center, there is no restriction on various vacation use.	①	②	③	④	⑤
8	While working at 112 center, night break time is kept well.	①	②	③	④	⑤
9	The physical environment of the 112 center is satisfactory. (Office space size, comfort level, etc.)	①	②	③	④	⑤
10	The compensation I receive is reasonable when I consider my work (difficulty, quantity).	①	②	③	④	⑤
11	I receive the allowance considering the specificity of 112 centers.	①	②	③	④	⑤

12	While working at 112 center, I am receiving adequate compensation for overtime work.	①	②	③	④	⑤
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**IV. Below are questions about external environment factors.
Please mark the appropriate option number.**

N	Question	strongly disagree	somewhat disagree	neutral	somewhat agree	strongly agree
1	Citizens trust 112 police officers.	①	②	③	④	⑤
2	Citizens respect 112 police officers.	①	②	③	④	⑤
3	The press accurately reports 112 police activities.	①	②	③	④	⑤
4	The press reports favorably on 112 police activities.	①	②	③	④	⑤

V. Below is a question about comprehensive job satisfaction.
Please mark the appropriate option number.

N	Question	Very Dissatis factory	dissatis factory	Neutral	Satis factory	Very Satis factory
1	When you sum up all the questions so far, how satisfied are you with your current division (112 center)?	①	②	③	④	⑤

VI. Finally, below are some questions about demographic factors for statistical processing. Please mark the appropriate option number.

1. What is your gender? ① Male ② Female

2. What is your age range?

① in 20s ② in 30s ③ in 40s ④ in 50s

3. How long have you worked as a police officer?

① Less than 5 years ② 5 ~ Less than 10 years ③ 10 ~ Less than 15 years

④ 15 ~ Less than 20 years ⑤ 20 and over 20 years

4. How long have you worked in emergency dispatching and operations command center?

(To be cumulatively calculated)

- ① Less than 3 years ② 3 ~ Less than 5 years ③ 5 ~ Less than 10 years
④ 10 ~ Less than 15 years ⑤ 15 and over 15 years

5. What is your rank?

- ① policeman ② senior policeman ③ assistant inspector
④ inspector ⑤ senior inspector ⑥ superintendent

6. What is your form of recruitment?

- ① open recruitment for policeman ② police university
③ police cadet ④ special recruitment ⑤ others

7. What is your final academic background?

- ① high school graduation and less ② two-year college graduation and less
③ four-year university graduation and less ④ graduate school and higher

8. What is the size of the 112 center you work for?

- ① Metropolitan (Provincial) Police Agency 112 center
② First grade Police station 112 center
③ Second grade Police station 112 center
④ Third grade Police station 112 center

9. Which provincial police agency do you belong to?

- ① Seoul ② Busan ③ Daegu ④ Incheon ⑤ Gwangju ⑥ Daejeon ⑦ Ulsan
⑧ Southern Gyeonggi ⑨ Northern Gyeonggi ⑩ Gangwon ⑪ Chungbuk
⑫ Chungnam ⑬ Sejong ⑭ Jeonbuk ⑮ Jeonnam ⑯ Gyeongbuk
⑰ Gyeongnam ⑱ Jeju

- Thank you very much -

국문 초록

112종합상황실 경찰관의 직무만족에 영향을 주는 요인에 대한 연구

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위진혁

112종합상황실은 국민이 위험에 처했을 때 가장 먼저 연락하는 경찰 부서이다. 경찰법이 규정하는 경찰의 첫째 임무가 국민의 생명과 신체, 재산을 지키는 것임을 생각해 볼 때, 112종합상황실의 중요성은 아무리 강조하여도 지나치지 않다. 한때 경찰 조직 내 한직(閑職)으로 인식되던 112종합상황실은 2012년 발생한 수원 토막 살인 사건 이후 그 중요성이 더욱 부각되어 경찰 조직 내 하나의 독립된 과(課)로 재편되었다. 최근에는 경찰청 차장 직속으로 치안상황관리관이 신설되었고, 이로 인해 112종합상황실의 위상은 더욱 높아지고 있다. 그러나, 이러한 조직 내 위상 변화와는 달리, 아직까지 112종합상황실에서 근무 중인 경찰관들에 대한 연구는 거의 이루어지지 않고 있다.

이러한 문제 의식에서, 본 연구는 112종합상황실 경찰관의 직무만족에 영향을 미치는 주요한 요인들은 무엇인지 밝히고, 이를 바탕으로 그들의 직무만족을 향상시킬 수 있는 정책 방향을 제안하는데 그 목적이

있다. 112경찰관들의 직무만족을 높여 그들이 자신의 직무에 집중할 수 있게 하는 것이, 결국에는 국민들을 더욱 안전하게 하는 방안이기 때문이다.

먼저, 경찰관 직무만족에 관한 선행연구 검토를 통하여 직무만족 요인들을 파악하였고, 이를 직무 스트레스 요인, 인간 관계 요인, 업무 환경 요인, 외부 환경 요인으로 분류하였다. 이러한 분류를 바탕으로, 112종합상황실에 맞게 하위 요소들을 구성하였다. 직무스트레스는 역할 갈등, 역할 모호성, 역할 과부하로 구분하였다. 인간관계 요인은 상사, 동료, 부하와의 긍정적 관계 및 상사의 변혁적 리더십으로 구분하였다. 업무 환경 요인은 승진에의 유리여부, 징계의 불합리성, 보수 만족도, 복지 만족도로 구성했다. 외부 환경 요인은 시민들의 112경찰에 대한 신뢰와 존경, 언론의 112경찰에 대한 비판적 태도로 구성하였다. 개별 하위 요소들을 독립 변수로 하여, 독립변수와 종속변수(직무만족도) 간 관계에 대한 11개의 가설을 구성하였다. 설정한 가설을 검증하기 위하여, 전국의 112종합상황실 경찰관들이 112 직무 교육을 위해 경찰교육원에 입소한 기회를 이용하여 설문조사를 실시하였다. 2019년 4월부터 11월 까지 210부의 설문지가 배부되었고, 이 중 불성실한 답변을 제외하고, 193부를 최종 분석에 사용하였다. 설문에 대한 통계 분석을 위해 STATA 14 버전을 사용하였다.

연구 결과, 112종합상황실에 근무하는 경찰관의 직무만족도에 가장 큰 영향을 주는 요인은 보수 만족도로 파악되었고, 그 다음은 역할 과부하 요인이 지목되었다. 나머지 독립변수들은 통계적으로 유의미하지 않았다. 이를 토대로 다음과 같은 정책 제안이 가능하다. 먼저, 112종합상황실 경찰관의 직무 만족을 높이기 위해서는 무엇보다 그들의 업무에 대해 정당하고 충분한 보상이 필요하다. 보상을 개선하기 위해서는

근본적으로 다른 공안직보다 낮게 책정된 기본급을 상향해야 함은 물론이고, 112종합상황실 근무자에 대한 수당 지급 확대를 제안하였다. 수당 확대와 관련해서는, 기존 112출동 수당의 지급대상에서 빠진 112센터 직원들까지 지급 대상으로 포함하는 방안과 더불어, 112 종합 상황실의 특성을 반영한 112 사건 접수(지령) 수당의 지급을 제안하였다. 또한, 역할 과부하로 인한 직무 스트레스를 해소하기 위해 112근무자 1인당 처리할 수 있는 업무량에 대한 과학적 직무 분석을 실시하고, 이를 기준으로 인력 배치를 할 것을 대안으로 제시하였다.

본 연구는 개인자격으로 설문을 작성하여 진행한 결과, 몇 가지 한계가 존재한다. 첫째, 112경찰관 응답자의 응답 편의성을 최우선으로 고려하다 보니, 종속변수인 직무만족도를 단일문항으로 측정하는 등 각 요소 측정을 위한 충분한 설문을 제시하지 않아 설문 후 분석에 어려움이 있었다. 둘째, 표본의 수가 부족하고, 설문 조사가 7회에 걸쳐 나누어 실시되어, 어느 특정 시점의 만족도를 측정하지 못하였다, 셋째, 연구의 설계 과정에서 112경찰만의 독자적인 독립변수를 발굴하지 못하였다.

이러한 한계에도 불구하고, 본 연구는 그 동안 경찰 관련 연구에서 상대적으로 소외되었던 112종합상황실 경찰관들을 대상으로 그들의 직무 만족에 영향을 주는 요인들을 종합적으로 다룬 논문으로서 가치가 있다. 이 연구를 바탕으로 불철주야 국민의 안전을 위해 노력하는 112 종합상황실 근무 경찰관들에 대한 관심이 높아지고, 이들의 직무만족과 처우 개선을 위한 심도 깊은 연구가 이루어지기를 희망한다.

주요어: 112종합상황실, 112경찰, 직무만족, 보수 만족, 역할 과부하

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