

The mediating effects of co-worker relationship between job affirmation expectation and job order request based on medical workers

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Abstract

This study empirically examines how medical workers associate co-work relationship, job affirmation expectation, and job order request. Co-work relationship measures collaboration and trust among co-workers. Job affirmation expectation measures the belief that diligent work is rewarded. Job order request measures how demanding the work is. We document that medical worker perceptions of job order request are negatively related with affirmation expectations and co-work relationship. This association varies across worker characteristics: this relationship is stronger among single workers relative to married workers. When dealing with a demanding work environment, single workers think more negatively about the organizational system and compensation expectation. These findings are important because they document how the effects of a demanding work place may be mitigated. Expanding co-worker collaboration programs can help mitigate the negative effects of demanding work environments. Given the challenges of the current COVID-19 pandemic, this study highlights how demanding medical work environments can be improved.

Keywords: Mediating effects, Job affirmation expectation, co-worker relationship, medical workers, COVID-19

1. Introduction

Medical workers who support and provide medical services to respond to unexpected diseases caused by environmental changes, such as COVID-19, are doing a lot of work. The large number of medical workers responding to the COVID-19 virus, which emerged in 2020, are experiencing more tremendous stress from their job than before. As such, research regarding the working environment of the medical workers is needed.

The purpose of this study is to provide an understanding of the working environment of medical personnel and to help improve the environment. It is intended to evaluate the Job affirmation expectation, the Job order request, and the impact of the co-worker relationships in the workplace for the medical workers. This study aims to contribute to the establishment of measures to improve the working environment of relevant workers by studying the connection between the working environment, the psychological effect of the environment, and the job.

2. Literature Review

2.1 Previous Literature About Environment Of Medical Workers

Currently, as new diseases continue to emerge, there is rising expectations and demand for medical services and medical workers. As a result, there is a growing interest in the working environment of medical workers.

In the face of changes in the social environment under COVID-19, the medical community is embracing experiencing multiple stresses from associated with an increased exposure to COVID-19 wearing protective clothing and performing tasks in an infected exposure environment. It is an area that heals and manages patients, and is classified as a professional area with professional certificates through study, and in some respects, healthcare workers are being educated as having to make sacrifices as a way to contribute to society.

Researcher Kim Young-hee (2011) studied the relationship between job stress and self-elasticity of hospital workers as well as self-elasticity of hospital workers to the quality of services provided in "Study on the Relationship between Self-Stress and Stress Response of Hospital Workers". In this study, it was argued that lack of workplace autonomy and peer support lowered the quality of service, and that self-elasticity improved the quality of service[15].

Researcher Yoon Sook-hee (2009) conducted a study that identified the level of job stress and depression of clinical nurses and explored potential factors that affected depression[13]. Research was conducted on the physical environment, job requirements, relationship conflicts, and organizational structure. The study identified potential deficiencies associated with the organizational structure and provided recommendations. Hospital workers were evaluated as occupations in the top 50% of the nation in terms of stress, and they were surveyed to have higher job stress than the average, and argued that management within the organization was necessary.

Researcher Kim In-sook (2015) argued that the positive psychological capital of individuals has a significant impact on the nurses, and that organizational immersion recognized by nurses is also an important factor in customer orientation. It also mentioned the need for research to develop programs that promote positive psychological capital for clinical nurses to improve their effectiveness[7].

Contrary to efforts to relieve the stress and depression of medical workers, it is being proposed and studied as a way to secure programs that can create compensation and a positive organizational culture with positive expectations. Therefore, this study seeks to conduct an assessment of the impact of Job affirmation expectation, Job order request, and Co-worker relationship.

Kang Hyun-jung, Shin Jae-yong, and Lee Eun-hyun (2020) argued that in order to reduce nurse turnover rates, it is necessary to provide manageable measures that can be sought along with violence prevention programs in the workplace[4].

2.2 Previous Research on Job Affirmative Expectation, Job Order Request, and Co-Worker Relationship Model

Through the 'Development and Standardization of Korean Job Stress Measurement Tools', which was developed in 2005, the government sought to identify job stress factors for Korean workers. This study used some of the measurements made in 2005 of 'Development and Standardization of Korean Job Stress Measurement Tools'. The factors used were classified and adopted as Job affirmation expectation (organization system, compensation system), Job order request (job demands, job insecurity), and Co-worker relationship factors. Already selected factors by presenting measures of correlation with factor analysis in the study[2][9][6].

In the study, positive psychological capabilities were conducted using Lee and Choi (2010) revamped PCQs (Psychological Capital Questionnaire) of Luthans et al. (2006) and tested for feasibility through a confirmative factor analysis[10]. Based on this data, Ko Jung ok (2013) argued that optimism and resilience, which are positive psychological capabilities, are factors that affect mental stress of clinical nurses, and that these positive psychological capabilities can be changed by systematic intervention through learning or training. Therefore, to reduce the exhaustion of clinical nurses, we argued that organizational-level efforts

and tools for management measures are needed to strengthen these positive psychological capabilities[3][8][11].

Lee Dong-seop, (2010) was found to have a statistically significant affiliation (+) with positive psychological capital of the organization's members, which is the three individual factors of innovative leadership considered as prior variables. This means that changes in the organizational system can be linked to positive psychological capital and ultimately contribute to the development of the enterprise.

Byung-jun. Kim (2018) showed that positive psychological capital is provided to the job satisfaction of child care teachers[1][5]. Yo Haeng Lee, Myo Jin Bang, and She Zeen Oah (2005) suggested that a family-friendly culture is about reducing family and workplace conflicts and increasing job satisfaction[14].

This study examines the relationship between the job expectation psychology of organization members and job order request, thereby improving the quality of medical workers' work and contributing to the growth of the medical industry.

3. Research Model and Hypotheses Development

3.1 Research Objectives and Research Models And Hypotheses

Medical workers mostly work according to set rules and make various efforts to prevent mistakes caused by performing their duties. While there are aspects of achieving new things, the focus is on doing repetitive tasks and doing them accurately. Since these tasks are treatments for humans, they are professional domain tasks that are also responsible for the consequences of frequent errors. Continuous work demands persistent concentration in order to reduce frequent work errors. In addition, there are cases of creating a negative job culture, such as being bullied when the work is not performed properly.

This study measured the impact of job affirmation expectations and co-worker relationship on job order request, unlike the view of existing nursing-related workers focusing on depression and stress. The purpose of this study is to provide an understanding of the working environment of medical personnel and to help improve the environment. Therefore, we will evaluate the job affirmation expectation for the job of medical workers, job order request, and their impact on the co-worker relationship.

In this study, the hypothesis that you want to analyze is defined as follows:

Hypothesis #1: The relationship between low job affirmation expectation and poor co-worker relationship has a positive correlation with job order request.

Hypothesis #2: Poor co-worker relationships act as a partial mediating effect with low job affirmation expectation and job order request.

Based on the total of 215 candidates, Pearson correlations of Job affirmation expectation, co-worker relationship, and job order request were presented. For job order requests, the Pearson correlation coefficient was established as detailed factors job order request and job insecurity was established.

In the hypothesis #1 analysis, a hierarchical multiple regression analysis was conducted to identify the impact of Job affirmation expectation and co-worker relationship on job order requests (positive correlations).

Hypothesis #2 analysis used the model (95%) of PROCESS macro to verify that the relationship has a mediated effect on job affirmation expectation and job order request relationships.

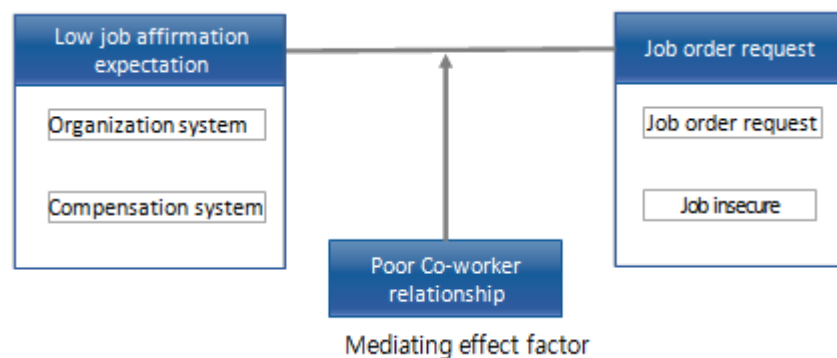


Fig. 1 The Research Model

4. Research Methodology

4.1 Data Collection

A total of 215 people participated in this study, and the participants were people in charge of blood related work at a medical facility located in Seoul, Korea. A study was conducted on groups working in one institution as a medical field worker in the medical field. The main areas of work covered were for workers who worked with blood collection and management of patients. The moderator participated in nursing and related administrative affairs. The surveys used in this study were collected between October and November 2020. As a special environment, it was a time when all of Korea wore masks due to the outbreak of the COVID-19 virus, and the news warned of the danger of COVID-19 almost every day.

4.2 Method of Collecting Data and Ethical Considerations

The statement suggested that participation in the survey, along with content related to research purposes and ethical considerations, was voluntary, that it was in compliance with confidentiality, and that researchers could be contacted if necessary. The participants were informed that the survey was being conducted for research purposes, and the participants were asked to write their thoughts.

4.3 Method of Data Analysis

The collected data from this study were analyzed using SPSS (version 26.0) and PROCESS macro. Real numbers, percentages, means, and standard deviations were used to identify the general characteristics of the subjects. The analysis of the relevance of demographic characteristics to Job affirmation expectation and job order requests of the subjects was conducted with Pearson correlation, independent sample t-test, one-way placement analysis and hierarchical multi-accounting analysis.

4.4 Variables of the Model

1) Job affirmation expectations

In this study, Job affirmation expectations were developed to measure the expectation that a reasonable organization would provide appropriate compensation if each individual performed his or her duties faithfully. The survey questions were organized by classifying them into sub-areas as organizational system and appropriateness of compensation.

It is based on the organizational system and compensation system presented in the 2005 study on job stress factors of Koreans. The organizational system implications used in this study are presented as items that measure factors such as the organization's political and operational systems, the organization's resources, conflicts within the organization, and rational communication. In addition, appropriateness of compensation is an evaluation of whether the degree of compensation expected for work is appropriate,

which includes respect, internal motivation, and expected nonconformity.

The values used in the following questionnaire were reversely coded (reversely changed values). Therefore, negative job expectation psychology was investigated.

Table 1. Operational definition of job affirmation expectation and questionnaire

Division		Contents	Reference
Job affirmation expectation	Organiza tion system	Our workplace has a fair and reasonable work evaluation and personnel system (promotion, division, etc.). *	Chang Sei-Jin, et al (2005), McHorney CA(1993), Karasek RA(1979)
		Support for personnel, spaces, facilities, equipment, and training necessary for the job performance is well provided. *	
		There is no friction between our department and other departments, and business cooperation is well established. *	
		There are opportunities and channels to reflect my thoughts on work. *	
	Compen sation system	Given all my hard work and achievements, I am properly respected and trusted at work. *	
		When I think that my circumstances (wage, position, job, etc.) will be better in the future, I work even though it may be difficult. *	
		You are given the opportunity to develop and demonstrate your abilities. *	

* Reversely coded (reversely changed values).

2) Job order request

Job order request and job insecurity factors were selected as subcategories of job order request. The job order request in this study refers to the degree of burden on job needs and includes time pressure, increased workload, disruption, accountability, and excessive job burden. Job insecurity includes general employment insecurity to the extent of stability in one's job.

Table 2. Operational definition of job order request and questionnaire

Division		Contents	Reference
Job order request	Job order request	I have a lot of work, so I always work under pressure.	Chang Sei-Jin, et al (2005), McHorney CA(1993), Karasek RA(1979)
		The workload increased significantly.	
		Sufficient rest (time) is not given while performing work.	
		You have to do several things at the same time.	
	Job insecurity	The situation at work is unstable and the future is uncertain.	
		There has been, or is expected to be, undesirable change (eg, Manpower restructuring) in my working conditions or circumstances.	

3) Co-worker relationship

Relativity is an evaluation of interpersonal relationships, such as the help or support of a boss or colleague in a company, including the support of a colleague, the support of a boss, and the overall support. A good relationship means that there is a lot of support for individuals at work. The values used in the following questionnaire were reversely coded (reversely changed values) and in this study, negative relationships were examined.

Table 3. Operational definition of co-worker relationship and questionnaire

Division	Contents	Reference
Co-worker relationship	My boss helps me get the job done. *	Chang Sei-Jin, et al (2005), McHorney CA(1993), Karasek RA(1979)
	My co-worker helps me get the job done. *	
	There are people who know and understand when I am having a hard time at work. *	

* Reversely coded (reversely changed values).

5. Result of the Research

5.1 General Characteristics of Study Participants

The participants in the study work for one organization, and the main area of work is to handle blood-related tasks as administrative performers or nurses of the organization. It is intended for those who are engaged in the field in connection with this.

The general characteristics of study participants were 33 males (15.35%) and 182 females (84.65%); in terms of age, 38 individuals (17.67%) aged under 30, 75 (34.88%) aged 30 to 40, 59 (27.44%) aged 40-50 and older, 41 (19.07%) aged 50-60, and 2 (0.93%) aged 60 and older.

In addition, the marital characteristics of the study participants were 153 married people (71.16%) and 62 unmarried people (28.84%). The study participants possessed 61 professional degrees (28.37%), 139 bachelor's degrees (64.65%) and 15 graduate or above (6.98%).

In terms of working type, 70 people (32.71%) worked in shifts, 135 people (63.08%) worked full-time, and ten others (4.21%) participated in an alternate work type. Other cases are participants who perform full-time and shift work at the same time. Among the participants in this survey, two or three shifts alternating per day/night are considered as the shifts working type. In the case of shift work, some expenses, such as additional allowances, are received in addition to basic pay during evening or holiday work. On the other hand, full-time work usually has a general working schedule from 9 a.m. to 6 p.m.

Regarding the length of one's career, 87 (40.47%) people had less than 10 years, 63 (29.30%) between 10-20 years, 52 (24.19%) between 20-30 years, and 13 (6.05%) over 30 years. In terms of monthly earnings, 105 people (48.84%) earned between 1.8-3.6 million won, 58 people (26.98%) earned between 3.6-5.4 million won, 32 people (14.88%) earned between 5.4-7.2 million won, and 20 people (9.30%) earned 7.2 million won or more.

In this work, measurements were taken using a five-step (minimum zero, maximum four) scale. The following is a summary of the analysis using independent sample t-test and one-way batch variance analysis in the mean comparison.

According to the analysis, if you look at Job affirmation expectation, it turns out that marital status, work type, career period, and monthly income have significant effects on each other. And in the case of job requirements, it has been shown that marital status and work patterns have a significant impact.

Table 4. Sample mean and variance for job affirmative expectation, job order request, and co-worker relationship (N=215, N=214 for a , * for p<0.05)

Division		n	%	Low job affirmation expectation			Job order request			Poor co-worker relationship		
				M±SD	t/f	p	M±SD	t/f	p	M±SD	t/f	p
Gender	Male	33	15.35 %	2.5584±0.4336	-	0.368	2.4129±0.3730	0.001	0.999	2.1313±0.4854	1.007	0.315
	Female	182	84.65 %	2.6350±0.4511	0.902		2.1428±0.4262			2.0421±0.4649		
Age	Under 30	38	17.67 %	2.7030±0.5318	2.406	0.051	2.2730±0.4575	1.938	0.105	1.9824±0.5848	0.349	0.845
	30-40	75	34.88 %	2.7067±0.4279			2.4550±0.3731			2.0622±0.4639		
	40-50	59	27.44 %	2.5763±0.4101			2.4852±0.4579			2.0960±0.4061		
	50-60	41	19.07 %	2.4739±0.4183			2.3567±0.3714			0.4527±0.0707		
	Over 60	2	0.93%	2.4286±0.6061			2.5000±0.5303			2.0000±0.4714		
Marital Status	Married	153	71.16 %	2.5826±0.4154	-2.103	0.036*	2.4518±0.3938	2.169	0.031*	2.0544±0.4367	-0.066	0.947
	Single	62	28.84 %	2.7235±0.5108			2.3165±0.4609			2.0591±0.5416		
Education	Associate degree	61	28.37 %	2.6066±0.4423	1.700	0.168	2.4344±0.42793	0.314	0.814	2.0984±0.8187	0.421	0.737
				2.6199±0.4436			2.4428±0.4313			2.0960±0.4245		
	Bachelor	139	64.65 %	2.6516±0.4541			2.4038±0.4222			2.0479±0.4940		
	Graduate school or higher	15	6.98%	2.4286±0.3894			2.4083±0.3487			1.9555±0.4153		
Working type	Shift work	70	32.71 %	2.7388±0.4931	3.888	0.021*	2.5090±0.4242	3.068	0.0494*	2.1047±0.5309	0.558	0.573
	Full-time	135	63.08 %	2.5619±0.4086			2.3583±0.4123			2.0320±0.4477		
	Etc.	10	4.21%	2.7143±0.4949			2.4306±0.3314			2.0370±0.2003		
Career period	Less than 10 years	87	40.47 %	2.7176±0.4748	3.127	0.027*	2.3707±0.4183	1.140	0.334	2.0383±0.5293	0.617	0.605
	10-20 years	63	29.30 %	2.6168±0.4175			2.4802±0.4491			2.0370±0.4021		
	20-30 years	52	24.19 %	2.5247±0.4038			2.4279±0.3854			2.1282±0.4812		
	More than 30 years	13	6.05%	2.4176±0.4719			2.3077±0.3666			1.9743±0.2135		
Monthly income(un it: : million Korean won)	1.8-3.6	105	48.84 %	2.7198±0.5166	3.711	0.012*	2.4667±0.4268	1.510	0.212	2.0793±0.5032	0.881	0.451
	3.6-5.4	58	26.98 %	2.5690±0.3250			2.3318±0.3984			2.0574±0.4332		
	5.4-7.2	32	14.88 %	2.4598±0.4228			2.4257±0.4511			1.9375±0.4515		
	More than 7.2	20	9.30%	2.5357±0.2852			2.3437±0.3438			2.1166±0.3940		

5.2 Correlation between Job Affirmation Expectation, Job Requirements, And Co-Worker Relationship Performance

The descriptive statistics for the factors adopted in the study are as follows: A total of 215 participants participated, with the main variable, the low job affirmation expectation average, 2.5233 (±0.44833, maximum 4 points), the job order request, 2.44279 (±0.417679, maximum 4 points), and the poor co-

worker relationship was 2.0558 (± 0.4680 , maximum 4 points). If the score is high, job affirmation expectation is negative, job order request is increased, and the relationship is poor.

Table 5. Descriptive statistics of job affirmative expectation, job order request, and co-worker relationship

Division	N	Minimum	Maximum value	Average	Standard Deviation
Negative job affirmation expectation	215	1.29	3.71	2.6233	0.44833
Job order request	215	1.250	3.625	2.41279	0.417679
Poor co-worker relationship	215	1.00	3.67	2.0558	0.46807

Low job affirmation expectations hearing is job order request (0.317, $p < 0.01$), poor co-worker relationship (0.534, $p < 0.01$), low job affirmation expectation hearing is job order request (0.317, $p < 0.01$), poor co-worker relationship and job order request are 0.388, $p < 0.01$. In conclusion, it has been found that low job affirmation expectation has a positive correlation between job order request and 0.317 and that all factors have positive (+) correlations with each other. This indicates that the higher the low job affirmation expectation, the higher the job order request, and the higher the job order request as the poor co-worker relationship increases.

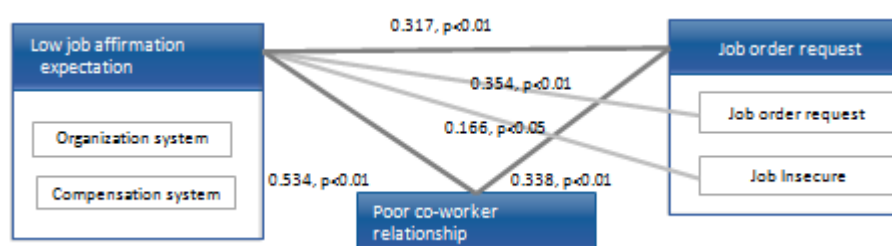


Fig 2. The correlation between negative job affirmative expectancy, Poor co-worker relationship, job requirements (Pearson correlation coefficient), N=215

Table 6. Pearson correlation between negative job affirmative expectation, job order request, and poor co-worker relationship

Division		Job affirmation expectation	Job order request	Co-worker relationship
Job affirmation expectation	Pearson correlation	1	.317**	.534**
	Significance probability(both sides)		0.000	0.000
Job order request	Pearson correlation	.317**	1	.388**
	Significance probability(both sides)	0.000		0.000
Co-worker relationship	Pearson correlation	.534**	.388**	1
	Significance probability(both sides)	0.000	0.000	
N		215	215	215
**. The correlation is significant at the 0.01 level(both sides).				

5.3 Interpretation of Research Results

Hierarchical multilinear regression analysis for hypothesis #1 (the relationship with Job affirmation expectation correlates positively to job order request) found that the poor co-worker relationship with the

hypothesis 1, Job affirmation expectation and poor co-worker relationship has positive correlation with the job order request and volume.

Durbin-Watson is 1.911, which is close to 2, indicating that inter-object independence exists. Finally, to diagnose multicollinearity among explanatory variables, we identify variability inflation factor [VIF] and tolerance. The VIF value was 1.000, and the tolerance limit was 1.000, indicating that the tolerance limit met the regression analysis condition.

Looking at the analysis results, the co-worker relationship between negative job order request (Y) was investigated by $Y=0.295X+1.638$, $X=$ low job affirmation expectation. Poor co-worker relationship and job order requests were investigated as $Y=0.346Z+1.702$, $Z=$ relational. Therefore, this hypothesis #1 was adopted, and it was demonstrated that the positive expectations of low job affirmation expectation and the poor co-worker relationship have positive (+) correlations in job order request. In other words, more job order request may appear in the process as low job affirmation expectation increase. In addition, increasing the poor co-worker relationship increases the job order request.

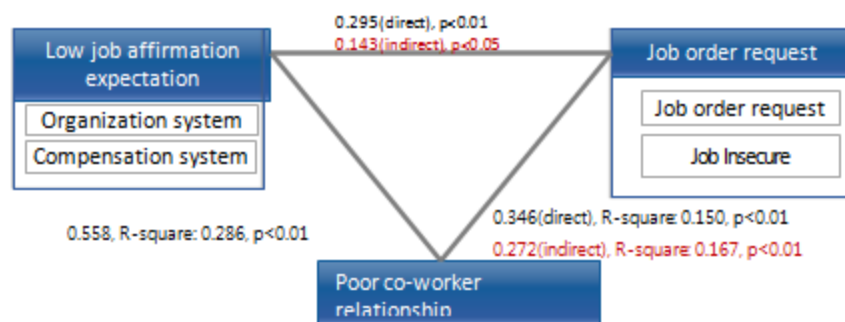


Fig. 3 Hierarchical multiple linear regression analysis of job affirmation expectation, co-worker relationship, job order request

Table 7. Job affirmation expectation model summary and Coefficients

Model summary							
R	R-square		Modified R-square	Standard error of the estimate		Durbin-Watson	
.317a	0.100		0.096	0.397064		1.901	
a. Predictor: (constant), job affirmative expectation, b. Dependent variable: job order request							
Coefficient							
Division	Un-normalization factor		Standardized path coefficient	t	Significance probability	Collinearity statistics	
	B	Standard error	beta			tolerance	VIF
(constant)	1.638	0.161		10.167	0.000		
Negative job affirmation expectation	0.295	0.061	0.317	4.878	0.000	1.000	1.000

Looking at the results of the analysis of low job affirmation expectation, it was found that marital status, work type, career period, and monthly income had a significant impact on each other. In particular, marital status and work patterns were evaluated as meaningful values in low job affirmation expectations and job order requests. According to a survey based on the classification of low job affirmation expectations, job order requests, and poor co-worker relationships in the form of marriage, single people have a higher influence among the three factors compared to marriage people.

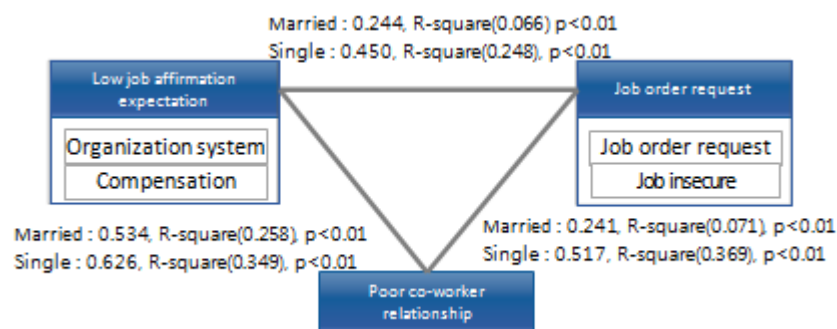


Fig. 4 Results of group-based regression analysis of married and single

Hypothesis #2 (Poor co-worker relationships act as a partial mediating effect with low job affirmation expectation and job order request.) The analysis used the model (95%) of PROCESS macro to control covariates that emerged related to positive psychology among general characteristics and to verify the mediated effects of positive psychology in the relationship between job affirmation expectation and job order request. As a result, it was investigated that the relationship between Job affirmation expectation and job order request provides a mediated effect.

Durbin-Watson was 1.939, close to 2, indicating the existence of inter-object independence. Finally, to diagnose multicollinearity among explanatory variables, we identify variability inflation factor [VIF] and tolerance limits. The VIF value was 1.400 and the tolerance limit was 0.714. The tolerance limits were satisfied with the regression analysis conditions.

Looking at the analysis results, the relationship between job order requests (Y) was found to be $Y=0.143X+1.477$, $X=$ low job affirmation expectation, $Y= 0.272Z+1.477$, $Z=$ poor co-worker relationship. Therefore, this hypothesis #2 was adopted and proved to have a partial relational medium effect between low job affirmation expectation and job order requests. In addition, this indicates that low job affirmation expectation has an effect of 0.143, but that the poor co-worker relationship has an effect of 0.272.

Table 8. Relationship between job affirmative expectation and job order request mediating model summary and coefficient

Model summary							
R	R-square		Modified R-square	Standard error of the estimate		Durbin-Watson	
.409	.167		.159	.382984		1.939	
Coefficient							
Division	Un-normalization factor		Standardized path coefficient	t	Significance probability	Collinearity statistics	
	B	Standard error	beta			tolerance	VIF
(constant)	1.477	0.160		9.214	0.000		
Negative job affirmation expectation	0.143	0.069	0.154	2.075	0.039	0.714	1.400
Poor co-worker relationship	0.272	0.066	0.305	4.117	0.000	0.714	1.400

6. Discussion

6.1 Analyze the Feature of the Data

It was found that marital status, work type, career period, and monthly income had a meaningful impact on the low job affirmation expectation.

First, single people had higher low job affirmation expectations than married people and it was found that among the participants, the average working experience of married people was 3.84 years and the case of singles was 2.172 years, which was shorter for singles. The reason for this is that single people have a lack of experience in nursing work and workplaces and organizations compared to married people who tend to have more experience. And also, single people have a higher turnover rate than married people because this is due to the lack of ability to adjust to work compared to married people.

Second, shift work was found to be higher influenced by low job affirmation expectation than full-time work. The reason is that in the case of nursing-related work, full-time work is mainly worked during the day, but shift-based nurses work at night because that most of nurses tend to avoid night shifts.

Third, In the case of nursing work, the shorter the work experience, the higher negative job expectations were investigated. It means that the shorter the career period, the less inclined to think, 'If you work hard, you will be recognized by your achievements and organization'. In addition, in the case of short careers, the lack of response to the seriousness of various accidents in the nursing job is related, it is understood that the stress received from the job is greater than that of nursing workers with a lot of experience.

Fourth, the lower the monthly income, the higher low job affirmation expectation sentiment was turned out. It means that because of monthly small income, they don't think that their work is achieved through promotion and organizational recognition. In addition, since the work is performed from a low position, there is little expectation for the organization's compensation.

In the case of job order requests, it was found that marriage status and work type were meaningful. First, it was found that married people had higher job order requests compared to single people. It is estimated that they think that they have more job demands because they feel more tired due to the environmental factors caused by marriage. In addition, since married people have a long work experience compared to single people, it is presumed that the increased awareness of the risk of accidents and increased responsibility through various job experiences.

Second, job order requests have been shown that shift work have more requirements than full-time work. In the case of shift work, they feel that shift work tends to increase compared to daytime workers due to physical exhaustion from night shift.

6.2 Hypothesis Testing Results

As a result of hypothesis #1 analysis, it was investigated that the increase in low job affirmation expectation and poor co-worker relationship among those who perform nursing work also increases job order requests. In the case of nursing work, not only is an excellent personal competency important, but teamwork is very important to minimize the occurrence of errors in work.

In this case, it can be thought that if the nurse is passively coping with the job as a low job affirmation expectation, he or she is always busy and has a lot of work to handle due to a characteristic of work that must be performed without errors, and if the relationship with colleagues is not good, the work may be aggravated by not receiving support from colleagues.

Positive job expectation has the potential to increase the spontaneity of nurse work. And through good co-

workers, work efficiency increases, which induces improvement in work adaptation ability. Therefore, it is important to maintain a positive mind of the organization and a good relationship with colleagues.

The items in Table 4 that show the average significant differences are marital status, work type, career, and monthly income.

It was found that single people had a higher influence among the three factors; low job affirmation expectation, job order requests, and poor co-worker relationships, compared to married one. The reason for this is that single people may feel they are doing more and spend more time for completing their job because they have a shorter career (less skillful, resulting lack of work experience) and work in a lower position.

Hypothesis #2 (Poor relationship provides a mediated effect on low job affirmation expectations and job order requests.) The analysis results are as follows.

The co-worker relationship is the evaluation of interpersonal relationships such as help or support between supervisors or colleagues within the organization, and includes support and work-related support from colleagues and supervisors.

Therefore, support from colleagues or bosses affects job demands, and improves the quality of nursing services because it alleviates difficulties that may arise during the performance of work and helps them lead a positive organizational life.

If poor co-worker relationships increase, it means that there is not much support from the individual at work, and because the individual's work feels difficult, it can be thought that the demand (job order request) for work increases. Therefore, most of the blood-related tasks are operated in a team system, so the relationship with colleagues is a very important factor when participating in work based on a team operating environment.

In particular, it is necessary to discover and expand programs to increase the relationship between fellow employees in nursing work.

In particular, in some nursing tasks, excessive work instructions result from the formation of inappropriate relationships between colleagues, so it is necessary to provide programs that form positive co-worker relationships between nurses. This will reduce errors that can occur in working environments and contribute to creating a positive workplace culture.

For example, there are ways to introduce various methods, such as lectures, modeling, coaching practice, and preceptors, and apply coaching skills such as listening, asking questions, and acknowledging each session. Coaching programs to enhance nurses' co-worker relationships should introduce educational content and methods suitable for nurses' environment, away from the uniform orientation education programs provided by most hospitals.

7. Conclusion

The purpose of this study is to provide assistance in understanding the working environment of medical workers and improving the environment. Therefore, this study measured the effect of low job affirmation expectation and poor co-worker relationship on job demands, unlike the view from the perspective of depression and stress of existing nursing workers.

It was used as three factors: job expectation and job demand for the job of medical workers, and negative relationship with colleagues in the workplace. The hypotheses to be analyzed in this study are defined as follows:

Hypothesis #1: The relationship between low job affirmation expectation and poor co-worker relationship has a positive correlation between job order request.

Hypothesis #2: Poor co-worker relationships act as a partial mediating effect between low job affirmation expectation and job order request.

Based on the total of 215 subjects, Pearson correlations of job affirmation expectations, co-worker relationships, and job order requests were presented, and Pearson correlation coefficients of job order requests and job insecurity were presented as detailed factors for job requests.

As a result of the analysis, it was found that the status of marriage, work type, career period, and monthly income had a significant impact on each other. In the case of job order request, it was found that marriage status and work style were significant.

Hypothesis #1 analysis found that the increase in low job affirmation expectation and poor co-worker relationship among those who perform nursing work also increases job order request. In the case of nursing work, not only is an excellent personal competency important, but teamwork is very important to minimize the occurrence of errors in work.

Hypothesis #2 analysis showed that if poor co-worker relationships increase, it means that there is not much support from the individual at work, and because the individual's work feels difficult, it can be thought that the demand (job order request) for work increases. Therefore, most of the blood-related tasks are operated in a team system, so the relationship with colleagues is a very important factor when participating in work based on a team operating environment.

In particular, it is necessary to discover and expand programs to increase the relationship between fellow employees in nursing work.

In particular, in some nursing tasks, excessive work instructions can lead to the formation of inappropriate relationships between colleagues. To reduce this, programs that form positive relationships between nurses as well as positive job affirmation expectation should be provided to reduce errors that can occur in the working environment and build a positive workplace culture.

The limitation of this study is that the participants in the study work at one institution and are limited to blood-related areas during nursing work, reflecting the specificity of the participants. Therefore, it is necessary to verify the findings by applying them to workers in various medical work areas and institutions.

This study studied the working environment of medical workers, the psychological effects they receive in the environment, and their association with their duties. Therefore, this study will contribute to the establishment of improvement measures for the environment of the workers involved.

Table 9. Summary of analysis results

Division		Contents	Cause	Counter-measures
Hypothesis #1	Whole group	As negative job affirmative expectation and poor co-worker relationship increase, job order request increases.	In the case of nursing work, not only is an excellent personal competency important, but teamwork is very important to minimize the occurrence of errors in work.	By expanding the introduction of relationship enhancement programs, to induce minimization of business error problems
	Marital Status	In the single group compared to married, negative job order request increased as the	Single people may feel that they are doing more and spend more time for completing their job	

		low job affirmation expectation and poor co-worker relationship increased.	because they have a shorter career (less skillful, resulting lack of work experience) and work in a lower position.	
Hypothesis #2	Whole group	The poor-coworker relationship between negative job affirmative expectation and job order request provides a partial mediating effect.	Job order request are partially affected by negative job affirmative expectations, but more influenced by poor co-worker relationships.	

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