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Coronavirus Infection Control Stress and Job-Related Fatigue among Dental Workers

Heeja NA*

Department of Dental Hygiene, Honam University, Korea

***Corresponding author:** Heeja NA, Department of Dental Hygiene, Honam University, Kwangju, 62399, Korea; artnahee@hanmail.net

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Abstract

Objective: This study aims to use it as basic data to find efficient dental hygiene manpower management measures by identifying dental hygienists' COVID-19 infection control job stress and infection control fatigue, correlating infection control job stress with infection control fatigue, and identifying factors affecting dental hygienists' work.

Methods: This study conducted a survey of 264 dental workers at Y Dental Clinic, I Dental Clinic, H Dental Clinic, and S Dental Hospital in Gwangju Metropolitan City from May 1 to May 10, 22. Survey participants agreed to understand the purpose of the study and participate in the study, and the survey was conducted in a self-fill manner. When the sample is selected based on the general significance level of .05 and the effect size of 0.3 power of 0.95, using the G-power 3.1 program, the appropriate number of samples is 264. The questionnaire was measured on the Likert 5-point scale, and 5 points were given to the Likert 5-point scale of 'very important' and 1 point to 'not important at all', meaning that the higher the score, the higher the practicality. The data collected in this study were analyzed using the SPSS 21.0 program. The mean and standard deviation were obtained to understand the general characteristics of the subjects, and the independent sample t-test was analyzed at the significance level of 0.05 for gender and multiple job stress of scaling patients. A significant two-sided test was obtained at the 0.01 level of correlation between job stress and infection management fatigue, and a two-way analysis of the number of nursing patients, wearing protective clothing, and fear of infection was conducted on the 1st. In addition, infection control job stress and fatigue regression analysis for age were analyzed at the significance level of .05.

Discussion: In the regression analysis of infection control job stress and fatigue for age, the F statistical value of the number of nursing patients per day was 2.329, and the significance level.05. There is a significant difference (t=2.298, p=.022) The F statistic for fatigue wearing protective clothing is 2.329, which is significant.be significant at .05(t= 2.414, p=.0160. The total amount of change according to age is explained as 60% (34% according to the correction factor).

Conclusion: In the gender and scaling patient multiple job stress independent sample t-test in this study, the mean and standard deviation of men is 43.955 (952) and the mean and standard deviation of women is 3.703 (1.070). The t-value for the multiple job stress of scaling patients in men and women was 1.467 significance probability of .034, which showed a significant difference in the multiple job stress of scaling patients according to gender at the significance level of .05. In the correlation analysis between job stress and job fatigue, gender and overtime stress are -.161**, gender and no substitute workforce stress is -.161**, overtime stress and no replacement 1.000**, overtime stress and peer employee hand hygiene job stress .269**, overtime stress and new pandemic job stress.176**, overtime stress and confirmed during infection job stress .243**, overtime stress and scaling patient multiple job stress.243**, extended work stress, and job stress when performing various tasks simultaneously were found to be 167**. No substitute workforce No job stress and peer employee hand hygiene quarantine No job stress .269**, no substitute workforce Increased job stress and new pandemic job stress.176**, no substitute workforce and confirmed during infection Job stress.243**, no substitute workforce job stress and scaling patient multiple job stress .243**, no substitute workforce job stress and various simultaneous job stress .167**.Increasing job stress and protecting the hand hygiene quarantine of fellow employees.567**,The increase in job stress caused by a new epidemic and various simultaneous job stress.682** were found. Various simultaneous job stress and job stress of protecting the hand hygiene quarantine of fellow employees were found.691**. in addition, the number of nursing patients per day,

wearing protective clothing, and fatigue from infection to the patient. The results of the two-way variance analysis showed that there was no significant difference in the fatigue of wearing protective clothing at the significance level of .056 and the significance probability of .852 at the significance level of .399.It was not significant at .05 Fatigue in wearing protective clothing * F statistic is 2.889 and significance probability is 2.889, which is a significance level. There was a significant difference in .05.

Keywords: Gender; Scaling; Patient; Job stress; Infection control; Job fatigue; Covid; Age

Introduction

In order to prevent the occurrence, prevention, and spread of infectious diseases in hospitals, the KCDC revised the standard precautions for medical infections that recommend hand hygiene and wearing protective gear such as masks, gowns, and gloves [1].

In addition, infection control guidelines for COVID-19 were declared as dental prevention guidelines by the Centers for Disease Control and Prevention [2]. Recently, infection control has emerged important for dental workers as COVID-19 spreads. In addition to the basic tasks of dental hygienists such as scaling, implant prevention, orthodontic treatment, etc., education on the basic principles and practices of dental workers to prevent the spread of infection should include blood carrier education and patient safety. Job or task, training and training should be provided during at least annual orientation when a new task or procedure is introduced [3,4]. It should also address industrial health needs, including exposure or infection control of the necessary personnel of dental care. In a previous paper, it was said that infection control job stress becomes infection control job stress by working at a dentist with a high risk of infection, nursing patients with a high risk of infection, and exposure to infection risk factors [5,6]. It is required to understand the factors affecting dental hygienists' infection control job stress due to the recent COVID-19 epidemic. Job stress due to strengthening dental medical-related infection control guidelines increases fatigue [7]. In the previous paper, the nurse's burnout deteriorates the quality of nursing services for infected patients [8]. Even in clinical dentistry, dental hygienists with high stress or fatigue have lower ability to cope with infection control and reduce their performance as professional dental hygienists. In particular, due to the spread of COVID-19, the number of nursing patients per day in dental clinic, wearing protective clothing, and fatigue from infection to patients are showing a deep correlation, increasing job stress. Therefore, the stress of dental hygienists' COVID-19 infection management and job-related fatigue can affect other people besides themselves. According to previous papers, the higher the job stress, the higher the degree of burnout, and the lower the burnout, the higher the performance of infection control guidelines, the lower the medical-related infection rate [9]. In this study, due to the lack of papers on infection control job stress and infection control fatigue, it is necessary to prepare an intervention strategy to lower infection by grasping infection control job stress and infection control fatigue for dental hygienists. Therefore, this study attempted to use it as basic data to find an efficient infection management plan by identifying the dental hygienist's infection management stress and job-related fatigue, and to increase the efficiency of dental hygienists' work.

Materials and Methods

From May 1 to May 10, 2022, 264 dental workers were surveyed at Y Dental Clinic, I Dental Clinic, H Dental Clinic, and S Dental Hospital in Gwangju Metropolitan City. Survey participants agreed to understand the purpose of the study and participate in the study, and the survey was conducted in a self-fill manner. This study was conducted with the consent of the IRB (NO1041223-HR-04) Honam University's BioScience Ethics Committee. When the sample is selected based on the general significance level of .05 and the effect size of 0.3 power of 0.95, using the G-power 3.1 program, the appropriate number of samples is 264. The questionnaire was measured on the Likert 5-point scale, and 5 points were given to the Likert 5-point scale of 'very important' and 1 point to 'not important at all', meaning that the higher the score, the higher the practicality. In the questionnaire, infection control job stress loophole [10] and infection control fatigue were used by Koo [11].

Research Tool

Infection control job stress

Infection management job stress was measured using the infection management nurse's job stress tool developed by Heo (10). It consists of 9 questions of infection control job stress. The question score is on the Likert scale of 1 point from "very not" and 5 points from "very not", and a high score means high job stress. In this study, the reliability Cronbach's alpha was .641.

Infection control fatigue

Infection management fatigue was measured using the infection management fatigue tool developed by Koo Hyo (11), and the burden factors due to infection concerns and excessive interest are composed of 11 questions. Each question is on a 5-point Likert scale of 1 point from "very not" to "very not", and the higher the score, the higher the fatigue. The reliability of this study, Cronbach's alpha, was .717.

Analysis Method

The data collected in this study were analyzed using the SPSS 21.0 program. The mean and standard deviation were obtained to understand the general characteristics of the subjects, and the independent sample t-test was analyzed at the significance level of 0.05 for gender and multiple job stress of scaling patients. A significant two-sided test was obtained at the 0.01 level of correlation between job stress and infection management fatigue, and a two-way analysis of the number of nursing patients, wearing protective clothing, and fear of infection was conducted on the 1st. In addition, infection control job stress and fatigue regression analysis for age were analyzed at the significance level of .05

Results

General characteristics of subjects

In the general matters of this study, 264 participants. In age, 95 people aged 23 years old were 36.5%, 53 people aged 24 years old were 20.1%, 74 people aged 25 years old were 28.0%, 38 people aged 26 years old were 14.4%, and 4 people aged 27 years old were 1.5%. In gender, it was 17.0% for male 45 and 83.0% for female 219, and in education, it was 49.2% for 130 students, 28.0% for Bachelor of art 74, 6.8% for high school 18 students, and 4.5% for Etc. In marriage, single 228 people 86.4% and married 36 people 13.6%.

Table 1: *General characteristics of subjects (n=264).*

item	sub item	frequency	percent	Mean	SD	T	P
age	23	95	36.5	24.253	1.137	346.595	.000
	24	53	20.1				
	25	74	28.0				
	26	38	14.4				
	27	4	1.5				
gender	male	45	17.0	1.829	.376	78.904	.000
	female	219	83.0				
education	college	130	49.2	1.893	1.132	27.184	.000
	Bachelor of art	74	28.0				
	Master	30	11.4				
	high school	18	6.8				
	etc	12	4.5				
marriage	single	228	86.4	1.136	.343	53.701	.000
	married	36	13.6				
number of nursing patients per day	15preson	68	25.8	22.556	6.196	59.145	.000
	20preson	68	25.8				
	25preson	79	29.9				
	30preson	23	8.7				
	35preson	26	9.8				

Infection management education experience within a year	1time	64	24.2	2.750	1.369	32.619	.000
	2time	60	22.7				
	3time	54	20.5				
	4time	50	18.9				
	5time	36	13.6				

In the number of nursing patients per day, 25.8% of 15 preson 68 people, 25.8% of 20 preson 68 people, 29.9% of 25 preson 79 people, 8.7% of 30 preson 23 people, and 9.8% of 35 preson 26 people. In the Infection management education experience with a year, 24.2% of 64 people in 1 time, 22.7% of 60 people in 2 time, 20.5% of 54 people in 3 time, 18.9% of 50 people in 4 time, and 13.6% of 36 people in 5 time (Table 1).

Gender and scaling patients multiple job stress independent sample t-test

In the gender and scaling patients multiple job stress independent sample t-test, the mean and standard deviation of men is 43.955 (9.952) and the mean and standard deviation of women is 3.703 (1.070). The t-value for the multiple job stress of scaling patients in men and women is 1.467, and the significance probability is .034, and it seems that there is a significant difference in the multiple job stress of scaling patients according to gender at the significance level of .05 (Table 2).

Table 2: *Gender and scaling patients multiple job stress independent sample t-test (n=264).*

item	sub item	Mean	SD	T	P
gender	male	43.955	.952	1.467	.034
	female	3.703	1.070		

Correlation analysis between job stress and infection control fatigue

In the correlation analysis between job stress and job fatigue, gender and overtime stress are -.161**, gender and no substitute workforce stress is -.161**, overtime stress and no replacement 1.000**, overtime stress and peer staff hand hygiene protection job stress .269**, overtime stress and new pandemic job stress increase.176**, overtime stress and infection confirmed during infection.243**, overtime stress and scalding patient multiple job stress.243**, extended work stress, and job stress when performing various tasks simultaneously were found to be 167**. No substitute workforce No job stress and peer employee hand hygiene quarantine No job stress .269**, No substitute workforce No job stress and new pandemic No job stress Increase.176**, No substitute workforce No job stress and infection confirmed job stress.243**, no substitute workforce job stress and scaling patient multiple job stress .243**, no substitute workforce job stress and various simultaneous job stress .167**. Increasing job stress and protecting the hand hygiene quarantine of fellow employees.567**, The increase in job stress caused by a new epidemic and various simultaneous job stress.682** were found. Various work simultaneous job stress and peer employee hand hygiene isolation protective job stress .691** (Table 3).

Technical statistics on the number of nursing patients per day, wearing protective clothing, and fatigue from infection

The two-way ANOVA, which analyzed the number of nursing patients as independent variables of wearing protective clothing and risk of infection to patients, has a mean and standard deviation of 27.500 (3.535) and a mean and standard deviation of 24.459 (6.211) 37, a mean and standard of 22.09 (6.03) and a mean and standard. In other words, the number of nursing patients per day, wearing protective clothing, and fatigue from infection to the patient were high (Table 4).

The results of the two-way analysis of the number of nursing patients per day, wearing protective clothing, and the risk of infection to patients

According to the results of the two-way analysis of the number of nursing patients per day, the wearing of protective clothing, and the risk of infection to the patient, F statistical values of 2.556 and significance probability of .056 showed no significant difference in the fatigue of wearing protective clothing at the significance level of .05 and the risk of infection to the patient. The F statistical value is .399 with a significance probability of .852, a significance level. It was not significant at 05. Fatigue for protective clothing * The F statistic is 2.889 and the significance probability is 2.889, which is significant. There was a significant difference in (Table 5).

Regression analysis of infection control job stress and fatigue in age

In the regression analysis of infection control job stress and fatigue for age, the F statistic of the number of nursing patients per day was 2.329 and the significance level was 0.05, showing a

significant difference (t=2.298, p=.022) The F statistics of fatigue in wearing protective clothing are significant at 2.329 and the significance level of .05(t= 2.414, p=.0160). The total amount of change according to age is explained as 60% (34% according to the modification coefficient).

Table 3: *Correlation analysis between job stress and infection control fatigue (n=264).*

	Gender	Overtime job stress	No replacement workforce Job stress	Employee Hand Hygiene Quarantine Guard Job Stress	Job stress increased due to the outbreak of a new pandemic	Job stress while carrying out infection, whether confirmed or not	Scaling Patient Multiple Job Stress	Multiple simultaneous job stresses
Gender	1	-.161**	-.161**					
Overtime job stress	-.161**	1	1.000**	.259**	.176**	.243**	.243**	.167**
No replacement workforce Job stress	-.161**	1.000**	1	.259**	.176**	.243**	.243**	.167**
Employee Hand Hygiene Quarantine Guard Job Stress		.259**	.259**	1	.567**			.691**
Job stress increased due to the outbreak of a new pandemic		.176**	.176**	.567**	1			.682**
Job stress while carrying out infection, whether confirmed or not		.243**	.243**			1	1.000**	
Scaling Patient Multiple Job		.243**	.243**			1.000**	1	

Stress								
Multiple simultaneous job stresses		.167* *	.167**	.691**	.682**			1
**Correlation is significant at 0.01 level (both sides)								

Table 4: *Technical statistics on the number of nursing patients per day, wearing protective clothing, and fatigue from infection. (n=264).*

Technical statistics				
Dependent variable: Number of patients per day				
Fatigue from protective clothing	**Patient's fear of infection Fatigue**	**Mean**	**sd**	**N**
I don't think so.	I don't think so.	20.555	4.639	9
	general	30.000	7.071	2
	That's right.	28.750	9.464	4
	It's quite so	30.000	7.071	2
	the entire	24.705	7.388	17
general	I don't think so.	21.666	6.055	6
	general	23.281	7.578	32
	That's right.	21.666	5.232	15
	It's quite so	21.153	6.175	13
	the entire	22.348	6.634	66
That's right.	It's not very much so	27.500	3.535	2
	I don't think so.	28.076	5.604	13
	general	19.545	4.156	11
	That's right.	22.187	4.908	32
	It's quite so	20.892	5.452	28
	the entire	22.441	5.674	86
It's quite so	I don't think so.	25.000	6.123	9
	general	22.500	3.441	20
	That's right.	21.290	7.299	31
	It's quite so	22.714	6.224	35
	the entire	22.421	6.139	95
the entire	It's not very much so	27.500	3.535	2
	I don't think so.	24.459	6.211	37
	general	22.615	6.193	65
	That's right.	22.073	6.283	82
	It's quite so	21.987	6.048	78
	the entire	22.556	6.196	264

Table 5: *The results of the two-way analysis of the number of nursing patients per day, wearing protective clothing, and the risk of infection to patients (n=264).*

Object-to-Intermediate Effectiveness Test					
Dependent variable: Number of patients per day					
Sauce	Type III sum of squares	Degree of freedom	Mean square	F	p
Fatigue in protective clothing	276.287	3	92.096	2.556	.056
Patient Fears Infection Fatigue	48.828	4	12.207	.339	.852
Fatigue wearing protective clothing * Risk of infection to the patient	936.551	9	104.061	2.889	.003
an error in error	8898.034	247	36.024		
the entire	144425.000	264			
Modified Total	10099.148	263			
a. R squared = .119 (modified R squared = .062)					

Table 6: *Regression Analysis of Infection Control Job Stress and Fatigue in Age (n=264).*

coefficient[a]						
		Non-standardization coefficient		**standardization coefficient**		
model		**B**	**Standardization Error**	**Beta**	**t**	**p**
1	(coefficient)	22.243	.584		38.106	.000
	Job stress increased due to the outbreak of the new pandemic	-.043	.093	-.040	-.463	.644
	Perform job stress at the same time as a variety of tasks	.104	.101	.100	1.034	.302
	Job stress while performing infection, not knowing whether it is confirmed or not	.029	.068	.027	.423	.673
	Employee Hand Hygiene Quarantine Protection Job Stress	.020	.093	.019	.214	.831
	Number of nursing patients per day	.026	.011	.141	2.298	.022
	Fatigue in protective clothing	.190	.079	.156	2.414	.016

	Patient nursing fatigue under any circumstances	.068	.066	.064	1.026	.306

a. Dependent variable: age, R^2 (adj, $R^{2)}$ =.60(.34), f=2.329

Discussion

The data collected in this study were analyzed using the SPSS 21.0 program. The mean and standard deviation were obtained to understand the general characteristics of the subjects, and gender and scaling patients' multiple job stress were the independent sample t-test was analyzed at the significance level of .05. A significant bilateral test was obtained at the 0.01 level of correlation between job stress and infection control fatigue analysis. A two-way analysis of the number of nursing patients and the wearing of protective clothing and the risk of infection to the patient was conducted on the 1st. In addition, infection control job stress and fatigue regression analysis for age were analyzed at the significance level of .05. From May 1 to May 10, 2022, 264 dental workers were surveyed at Y Dental Clinic, I Dental Clinic, H Dental Clinic, and S Dental Hospital in Gwangju Metropolitan City. Survey participants agreed to understand the purpose of the study and participate in the study, and the survey was conducted in a self-fill manner. If the sample is selected based on the general significance level of .05 and the effect size of 0.3 power of 0.95, using the G-power 3.1 program, the appropriate number of samples is 264. The questionnaire was measured on the Likert 5-point scale, and 5 points were given to the Likert 5-point scale of 'very important' and 1 point to 'not important at all', meaning that the higher the score, the higher the practicality.

The general point is that 264 people participated in this study. In age, 95 people aged 23 years old were 36.5%, 53 people aged 24 years old were 20.1%, 74 people aged 25 years old were 28.0%, 38 people aged 26 years old were 14.4%, and 4 people aged 27 years old were 1.5%. In gender, 17.0% were male 45 and 83.0% were female 219, and in education, 49.2% were 130 students, 28.0% were Bachelor of art 74, 6.8% were high school 18 students, and 4.5% were 12 students. In marriage, single 228 people 86.4% and married 36 people 13.6%. In the number of nursing patients per day, 25.8% of 15 person 68 people, 25.8% of 20 person 68 people, 29.9% of 25 person 79 people, 8.7% of 30 person 23 people, and 9.8% of 35 person 26 people. In the Infection management education experience with a year, 24.2% of 64 people in 1 time, 22.7% of 60 people in 2 time, 20.5% of 54 people in 3 time, 18.9% of 50 people in 4 time, and 13.6% of 36 people in 5 time.

In the gender and scaling patients multiple job stress independent sample t-test, the mean and standard deviation of men is 43.955 (9.952) and the mean and standard deviation of women is 3.703 (1.070). The t-value for the multiple job stress of scaling patients in men and women is 1.467 significance probability .034, and it seems that there is a significant difference in the multiple job stress of scaling patients according to gender at the significance level of .05. (Table 2).

In the correlation analysis between job stress and job fatigue, gender and overtime stress -.161**, gender and no substitute workforce stress is -.161**, overtime stress and no replacement 1.000**, overtime stress and peer employee hand hygiene job stress .269**, overtime stress and new pandemic job stress.176**, overtime stress and confirmed during infection job stress .243**, overtime stress and scaling patient multiple job stress.243**, extended work stress, and job stress when performing various tasks simultaneously were found to be 167**. No substitute workforce No job stress and peer employee hand hygiene quarantine No job stress .269**, no substitute workforce Increased job stress and new pandemic job stress.176**, no substitute workforce and confirmed during infection Job stress.243**, job stress without substitute manpower and multiple job stress .243** in scaling patients, job stress without substitute manpower and various simultaneous job stress .167**. Increasing job stress and protecting hand hygiene quarantine of fellow employees due to the outbreak of new infectious diseases

Job stress .567**, The increase in job stress caused by a new epidemic and various simultaneous job stress.682** were found. Various simultaneous job stress and peer employee hand hygiene quarantine protective job stress.691** (Table 3).

The number of nursing patients per day, wearing protective clothing, and the risk of infection to the patient were high (Table 4).

The number of nursing patients per day, wearing protective clothing, and the risk of infection to patients, the two-way analysis showed that the F statistics were 2.556 and The significance probability was .056, and there was no significant difference in the fatigue of wearing protective clothing at the significance level of .05. The F statistical value of fatigue, which is feared to be infected with the patient, is .399, with a significance probability of .852, a significance level.It was not significant at .05. Fatigue for protective clothing * The F statistic is 2.889 and the significance probability is 2.889, which is significant. There was a significant difference in Table 5.

In the regression analysis of infection control job stress and fatigue for age, the F statistical value of the number of nursing patients per day was 2.329, and the significance level.05. It shows a significant difference (t=2.298, p=).022)

The F statistic for fatigue wearing protective clothing is 2.329, which is significant.be significant at 05 (t= 2.414, p=.0160). The total amount of change according to age is explained as 60% (34% according to the modification coefficient).

Conclusion

Recently, due to the coronavirus-19 epidemic, the application of infection control procedures and infection control guidelines has led to more work than usual and experiencing greater stress [12]. In this study, there were significant differences in job stress and infection control fatigue according to general characteristics of COVID-19 infection control in age, gender, education, marriage, number of patients per day, and Infection management education experience with a year. In previous studies, the group aged over 40 years old and under 29 years old had higher burnout than the group aged 30-39, and the group of unmarried people had higher burnout than the group of married people. According to previous studies, unmarried people feel psychological instability (Maslach, 1976) compared to married people, so job stress and job fatigue are higher in unmarried people than married people [13]. In the general matters of this study, 264 participants. In age, 95 people aged 23 years old were 36.5%, 53 people aged 24 years old were 20.1%, 74 people aged 25 years old were 28.0%, 38 people aged 26 years old were 14.4%, and 4 people aged 27 years old were 1.5%. In gender, it was 17.0% for male 45 and 83.0% for female 219, and in education, it was 49.2% for 130 students, 28.0% for Bachelor of art 74, 6.8% for high school 18 students, and 4.5% for Etc. In marriage, single 228 people 86.4% and married 36 people 13.6%. In the number of patients per day, 15 preson 68 people 25.8 percent, 20 preson 68 people 25.8 percent, 25 preson 79 people 29.9%, 30 preson 23 people 8.7%, It was found that the number of 35 preson 26 people was 9.8%. In the regression analysis of infection control job stress and fatigue for the age of this study, the F statistical value of the number of nursing patients per day was 2.329, and the significance level was .05, showing a significant difference(t=2.298, p=.022) The F statistic for fatigue wearing protective clothing is 2.329, a significance level.be significant at .05 (t= 2.414, p=.0160).The total amount of change according to age is explained as 60% (34% according to the modification coefficient). According to a previous paper, Freudenberger (1975) found that during the first year of work, the work was repeated at a high stress level due to the freshness of the first working life and the ability to train in the curriculum, making it easy to be disillusioned and troubled [14]. In this study, the Infection management education experience with a year included 24.2% of 64 people in 1 time, 22.7% of 60 people in 2 time, 20.5% of 54 people in 3 time, 18.9% of 50 people in 4 time, and 13.6% of 36 people in 5time t = 32.619, p = .000. In addition, in this study's gender and scaling patient multiple job stress independent sample t-test, the mean and standard deviation of men is 43.955 (952) and the mean and standard deviation of women is 3.703 (1.070). The t-value for the multiple job stress of scaling patients in men and women is 1.467 significance probability .034, and it seems that there is a significant difference in the multiple job stress of scaling patients according to gender at the significance level of .05. According to previous studies, the higher the infection control fatigue of nurses, the higher the infection control job stress was, which was consistent with the results of this study [15]. In the correlation analysis between job stress and job fatigue of COVID-19 infection control in this study, gender and overtime stress are -.161**, gender and no substitute workforce stress is -.161**, overtime stress and no replacement 1.000**, overtime stress and peer employee hand hygiene job stress .269**, overtime stress and new pandemic job stress.176**, overtime stress and confirmed during infection job stress .243**, overtime stress and scaling patient multiple job stress.243**, extended work stress, and job stress when performing various tasks simultaneously were found to be 167**. No substitute workforce No job stress and peer employee hand hygiene quarantine No job stress .269**, no substitute workforce No job stress and new pandemic job stress Increase.176**, no substitute workforce No job stress and confirmed during infection Job stress.243**, no substitute workforce Job stress and scaling patient multiple job stress .243**, no substitute workforce job stress and various simultaneous job stress .167**.It was found that there was an increase in job stress caused by a new pandemic, a job stress of not protecting the hand hygiene isolation of fellow employees.567**, an increase in job stress caused by a new pandemic, and various job stress at the same time.682** Various simultaneous job stress and non-compliance with hand hygiene quarantine of fellow employees.691**. in a previous paper The higher the infection control fatigue, the higher the burnout, but the more required infection control tasks other than the nurse's original work, the more difficult infection control procedures, fear of infection transmission, and the new role of infection control and the patient's needs [16]. In this study, the number of nursing patients per day, wearing protective clothing, and fatigue from infection to patients were high. In addition, the number of nursing patients per day and the risk of infection in patients with protective clothing were 2.556 and .056, indicating no significant difference in fatigue from wearing protective clothing at the significance level of .05, and the F statistic was .399 and a significance of .852.It was not significant at 05. Fatigue in wearing protective clothing * The F statistic is 2.889 and the significance probability is 2.889, which is a significance level. There was a significant difference. This study aims to use it as basic data to find efficient dental hygiene manpower management measures by identifying dental hygienists' COVID-19 infection control job stress and infection control fatigue, correlating infection control job stress with infection control fatigue, and

identifying factors affecting dental hygienists' work. Namely Personnel management should be divided into personal and exposure accident management, hand hygiene, equipment reprocessing, hygiene principles for employee safety, transport, washing, checking, drying, sterilization and sterilization, sterilization monitoring, records, administrative procedures, etc. Future research requires repeated studies on infection control behavior targeting dental hygienists with various careers and fields. The practical aspect of clinical dental hygienists is meaningful in that they have proposed practical measures and interventions to reduce infection control job stress and fatigue through work analysis to allocate appropriate dental hygienists.

Clinical Relevance (Original Articles and Review Articles)

This study attempted to improve the efficiency of dental hygienists' work by using it as basic data to find efficient dental hygienists' infection control measures by identifying the factors affecting coronavirus infection control stress and job-related fatigue.

Authorship

Dear author: heeja conceived this study, analyzed the data, and led the writing.

Acknowledgments

We would like to thank the dental workers at Y Dental Clinic, I Dental Clinic, H Dental Clinic, and S Dental Hospital in Gwangju Metropolitan City for allowing us to fill out the questionnaire for this study.

Conflict of Interest

No potential conflict of interest relevant to this article was reported.

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