

The Relationship Between Stress and Anxiety Towards Viral Epidemics and the Turnover Intention of Clinical Dental Hygienists

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ABSTRACT

The purpose of this study is to examine and understand the stress, anxiety, job stress, burnout, and turnover intention perceived by clinical dental hygienists under pandemic situations caused by viral epidemics, and analyze the interrelationship and related factors influencing the clinical dental hygienists' turnover intention. An online survey was conducted to measure the extent of stress and anxiety towards the viral epidemics targeting clinical dental hygienists, and 204 clinical dental hygienists serving at dental hospitals and clinics participated. The Pearson correlation analysis was performed, and the stepwise multiple regression analysis was performed for the factors influencing the turnover intention. The results of this study demonstrated that the stress and anxiety towards the viral epidemics turned out to be exhausted ($r = 0.30$), job stress ($r = 0.28$), and turnover intention ($r = 0.19$, $p < 0.01$), reflective of a significant positive correlation. The factors influencing the turnover intention were emotional fatigue from burnout ($\beta = 0.23$, $p = 0.001$), job stress ($\beta = 0.48$, $p < 0.001$), and bachelor's degree ($\beta = 0.14$, $p = 0.008$). The adjusted explanatory power of this model was 44%, respectively. Given the current situation where the COVID-19 epidemic has prolonged, it would be necessary to provide sufficient rest, provide a safe work environment, and apply work stress relief and management program to reduce the turnover rate of the clinical dental hygienists.

1. Introduction

The spread of infectious diseases has been classified as a social disaster under the Korean law, and the infectious disease disasters caused by viruses cause great fear in the human society. Given the coronavirus disease (COVID-19), which has continued from December 2019 through April 2022, and since the pandemic was declared on March 11, 2020, mankind has experienced the highest

level of disruption in response to the epidemic. (Korea Law Information Center, 2021; WHO, 2021). The COVID-19 is a respiratory syndrome caused by an RNA virus as a pathogen, which spreads through droplets, contact, and air, and illustrates symptoms including fever, cough, and pneumonia (Korea Center for Disease Control, 2021).

Under such a situation, it has been reported that the spread of infectious diseases causes negative psychological states such as depression and anxiety. In particular, it has been reported that depression, stress and anxiety symptoms among the health care workers due to the COVID-19 pandemic are evident (Park, 2020). As such, the health care workers perceive the anxiety and burden of infection during the epidemic (Lee et al., 2022).

Among others, the dental workers may be exposed to pathogenic microorganisms, including the viruses and bacteria transmitted through the oral and respiratory tract (Peng et al., 2020). A persistent exposure to the contaminated environments and medical equipments may give rises to the cross-infection of infectious diseases such as the HBV and the HIV as well as the COVID-19 (Ryu et al., 2020). As such, the dental workers who serve while fighting the fear of infection are undergoing significant stress due to the discomfort of wearing personal protective equipments, excessive workload and increased intensity of work, and the unclear quarantine guidelines (Kim, 2017; Kim & Park, 2017; Lee, 2021).

Some of the previous studies have reported that the fatigue of health care workers is accumulated due to COVID-19, resulting in increased job stress and burnout (Jun et al., 2021). Furthermore, it is suggested that the high job stress experienced by the health care workers during an epidemic may affect their turnover intention (Jung et al., 2017).

It was claimed that a continuous burnout induces the patient's avoidance and apathy, accumulates fatigue and anxiety, and increases the job stress (Jun et al., 2021). Furthermore, the excessive job stress can adversely affect the physical and mental health (Corle et al., 2010). If such stress persists for long, it will reduce the quality and satisfaction of the medical service provided for the patients, which will lower the work performance and bring about negative results. Oh, 2015).

In Korea and overseas, active research on the anxiety and stress levels and various influencing factors of nurses and medical staff in the context of infectious disease outbreaks (Hong et al., 2021; Jung et al., 2017; Mohsin et al., 2021; Okajima et al., 2021; Shin & Park 2021) have been conducted, and various methods are sought for the prevention of stress and burnout, but only a partial study of dental hygienists (Kwon & Kim, 2015; Lee et al., 2022; Moon et al., 2021) was conducted, which is insignificant at best.

Hence, in this study, the level of stress, anxiety, job stress, burnout, and the turnover intention for the viral epidemics recognized by the clinical dental hygienists was investigated. Furthermore, it was conducted to understand the interrelationship and the relevant factors influencing the turnover intention.

2. Research Method

2.1 Research design

This study is a descriptive cross-sectional study which investigates the relationship between the

stress and anxiety felt by clinical dental hygienists in a pandemic situation caused by a viral infectious disease, job stress, burnout, and turnover intention. For the ethical consideration of research subjects, the guidelines of the Declaration of Helsinki were observed, which were reviewed by the Institutional Bioethics Committee of OO University (IRB No: DKU 2021-10-006).

2.2 Research subject

The recruitment group of this study is the subjects working for dental hospitals and clinics, and the subjects of this study are the clinical dental hygienists working at the dental hospitals and clinics located in Seoul, Gyeonggi, Incheon, and Chungcheong. The basis for determining the sample size was calculated by using the G-power 3.1.7 program. A significance level of .05, an effect size of .15, a power of .90, and a predictor variable of 17 were set for 179 people, and 200 people were selected as the study subjects in consideration of their dropout rate. Finally, 205 questionnaires were distributed, and of which, 204 were the subjects of final analysis, excluding a copy of unanswered and insincere answers.

2.3 Research tool

The general characteristics were consisted of a total of 13 questions, such as gender, age, place of residence, last education, marital status, religious status, subjective health status, employment type, average income, career, place of work, area of work, and number of turnovers.

Stress and anxiety towards the viral epidemics was developed to measure the anxiety and stress of the medical staff about viral infections in a previous study (Chung et al., 2021). 2 points: not so, 3 points: moderate, 4 points: yes, 5 points: very much), and the average was calculated. The higher the score, the more severe the stress and anxiety about the viral infection. For burnout, a total of 20 items on the burnout measurement scale devised by Pine, Aronson & Kafry (1981) were modified and supplemented according to the dental hygienist, and finally, 17 items were used. A 5-point Likert scale was used for the items (1 point: never felt, 2 points: sometimes felt, 3 points: moderately felt, 4 points: often felt, 5 points: always). The higher the score, the higher the extent of burnout, and the 8 positive items were inversely converted.

For the job stress, a total of 19 questions were used by modifying and supplementing the questionnaires used in previous studies to match the purpose of this study (Chang, et al., 2005; Ivancevich & Matteson, 1980; Lee & Lee, 2017; Won & Oh, 2015). The turnover intention was modified and supplemented according to the purpose of the study based on the questionnaire used in previous studies (Moon & Han, 2011; Ivancevich & Matteson, 1980; Lee, 2013), and a total of 5 questions were used. The average was calculated by using a 5-point Likert scale (1 point: not at all, 2 points: disagree, 3 points: moderate, 4 points: yes, 5 points: very much), which meant that the higher the score, the higher the job stress and the turnover intention. The Cronbach's α was 0.79 for the stress and anxiety towards the viral infectious disease, 0.89 for burnout, 0.84 for job stress, and 0.78 for turnover intention, respectively.

2.4 Data collection

The data were collected for about a month from September 20, 2021 through October 17, 2021. As a structured questionnaire, it was conducted for the participants who explained the guidelines and the purposes of the study, and agreed to participate in the survey.

The survey was conducted by sending out a URL online. (<http://naver.me/GDc6lkfT> accessed on December 31, 2021)

2.5 Data analysis

The data collected were analyzed by using the SPSS (IBM SPSS Statistics 23.0 for window, SPSS Inc, Chicago, USA) program. The independent t-test and the one-way ANOVA were performed to determine the extent of intention to leave according to the general characteristics of the study subjects. After the analysis performed, the Duncan's post hoc test was performed for the variables demonstrating significant differences. The Pearson's correlation was conducted for correlations with stress and anxiety, job stress, burnout, and turnover intention for the viral epidemics. The stepwise multiple regression analysis was performed for the factors influencing the turnover intention, and the significance level was determined to be 0.05.

3. Research Results

3.1 Differences in terms of the turnover intention according to general characteristics

The difference in the turnover intention according to the general characteristics is as illustrated in Table 1. The turnover intention demonstrated a significant difference in the final educational background, subjective health status, and the number of turnover. The rest demonstrated no significant difference ($p > 0.05$). In terms of final education, bachelor's degree demonstrated the highest score of 3.62 ± 0.90 , vocational bachelor's degree was 3.37 ± 0.80 , and the master's degree or higher demonstrated the lowest score of 3.09 ± 0.94 or higher, demonstrating a significant difference ($p = 0.012$). There was a significant difference in the turnover intention according to the subjective health status as the poor health status demonstrated a higher result ($p = 0.001$). The number of turnovers turned out to be the highest at 3.81 ± 0.78 when it was 5 or more times, 3.58 ± 0.85 when more than once and less than 3 times, 3.33 ± 1.00 when there were more than 3 times and more than 5 times, and 3.19 ± 0.75 less than once, indicating a significant difference ($p = 0.018$). While there was no statistically significant difference, temporary workers demonstrated the highest results with 3.67 ± 0.70 and the permanent workers demonstrated the lowest results with 3.39 ± 0.90 . In the area of work, the preservation and prosthetic areas were the highest at 3.60 ± 0.89 , and the management and other areas turned out to be the lowest at 2.53 ± 0.73 .

Table 1. Difference in the turnover intention according to the demographic and sociological characteristics

Variables	Division	N	%	Turnover intention	p-Value* (duncan-)
				Mean±SD	
Sex	Male	21	(10.3)	3.44±0.66	0.108
	Female	183	(89.7)	3.44±0.90	
Age (in years)	<25	83	(40.7)	3.38±0.85	0.136
	26-30	82	(40.2)	3.58±0.85	
	>31	39	(19.1)	3.27±0.94	
Area	Seoul	52	(25.5)	3.50±0.91	0.150
	Gyeonggi	81	(39.7)	3.57±0.79	
	Incheon	19	(9.3)	3.41±1.04	
	Chungcheong	40	(19.6)	3.21±0.87	
	Others	12	(5.9)	3.08±0.85	
Education level	College	88	(43.1)	3.37±0.80 ^{ab}	0.012 (a<b)
	University	88	(43.1)	3.62±0.90 ^b	
	Master's or above	28	(13.8)	3.09±0.94 ^a	
Marital status	Unmarried	167	(81.9)	3.44±0.88	0.775
	Married	35	(17.2)	3.43±0.90	
	Others	2	(1.0)	2.78±0.94	
Religious	Yes	53	(26.0)	3.58±0.90	0.492
	No	151	(74.0)	3.39±0.86	
Subjective health	Very healthy	16	(7.8)	2.81±0.98 ^a	0.001 (a<b<c)
	Healthy	46	(22.5)	3.28±0.89 ^{ab}	
	Ordinary	83	(40.7)	3.44±0.84 ^b	
	Unhealthy	54	(26.5)	3.68±0.78 ^{bc}	
	Very Unhealthy	5	(2.5)	4.16±0.74 ^c	
Employment type	Permanent employee	168	(82.4)	3.39±0.90	0.251
	Temporary worker	27	(13.2)	3.67±0.70	
	Part-time jobs and others	9	(4.5)	3.60±0.74	
Income	<200	22	(10.8)	3.45±0.60	0.712
	200-250	90	(44.3)	3.36±0.83	
	250-300	69	(34.0)	3.52±0.94	
	>300	22	(10.8)	3.50±1.08	
Career (in years)	<1	20	(9.9)	3.12±0.89	0.770
	1-3	49	(24.1)	3.47±0.77	
	3-10	111	(54.7)	3.54±0.88	
	>10	23	(11.3)	3.15±0.96	
Workplace (dental)	Clinic	154	(75.5)	3.45±0.90	0.838
	Hospital	23	(11.3)	3.40±0.93	
	University and general hospital	21	(10.3)	3.49±0.64	
	Others	6	(2.9)	3.13±0.84	

Variables	Division	N	%	Turnover intention	p-Value* (duncan-)
				Mean±SD	
Area of work	Comprehensive work	110	(53.9)	3.42±0.81	0.152
	Periodontal, Surgical	15	(7.4)	3.48±1.04	
	Conservative, Prosthetics	44	(21.6)	3.60±0.89	
	Orthodontics	9	(4.4)	3.33±0.94	
	Desk and counseling	20	(9.8)	3.45±0.99	
	Management and others	6	(2.9)	2.53±0.73	
Number of turnover	0	52	(25.5)	3.19±0.75 ^a	0.018 (a<b)
	1-2	89	(43.6)	3.58±0.85 ^{ab}	
	3-4	48	(23.5)	3.33±1.00 ^a	
	≥5	15	(7.4)	3.81±0.78 ^b	

SD= standard deviation; by the Independent t-test or ANOVA test at $\alpha = 0.05$; a,b,c means followed by different letters are statistically significantly different at $\alpha = 0.05$

3.2 Distribution of key components for viral epidemics

Table 2 illustrates the distribution of key components of the viral epidemics among the clinical dental hygienists. Stress and anxiety towards the viral epidemics were 3.56 ± 0.64 . The overall scale of burnout was 3.04 ± 0.68 , emotional fatigue 2.92 ± 0.90 , physical burnout 3.74 ± 0.87 , mental burnout 2.77 ± 0.88 , and the decreased sense of achievement 2.37 ± 0.87 . Job stress was 3.16 ± 0.55 , and turnover intention was 3.44 ± 0.87 , respectively.

Table 2. Component distribution of key variables

Characteristics	Range	Min	Max	Mean±SD	Cronbach's α
1. Stress and Anxiety to Viral epidemics	1-5	1.44	5.00	3.56±0.64	0.786
2. Burnout	1-5	1.29	4.88	3.04±0.68	0.892
1) Emotional fatigue	1-5	1.00	5.00	2.92±0.90	0.855
2) Physical burnout	1-5	1.20	5.00	3.74±0.87	0.876
3) Mental burnout	1-5	1.00	5.00	2.77±0.88	0.665
4) Reduced sense of accomplishment	1-5	1.00	5.00	2.37±0.87	0.679
3. Job stress	1-5	1.47	4.42	3.16±0.55	0.842
4. Turnover intention	1-5	1.00	5.00	3.44±0.87	0.781

Min= minimum; Max= maximum; SD= standard deviation

3.3 Correlation between the key components of viral epidemics

Table 3 illustrates the results of the correlation analysis performed between the key components of viral epidemics of clinical dental hygienists. As a result, the stress and anxiety towards the viral epidemics were positively correlated with burnout ($r = 0.30$, $p < 0.01$), job stress ($r = 0.28$, $p < 0.01$), and turnover intention ($r = 0.19$, $p < 0.01$). Emotional fatigue ($r = 0.29$, $p < 0.01$) and physical burnout ($r = 0.30$, $p < 0.01$), which were the sub-factors of burnout, turned out to

be significantly positively correlated with stress and anxiety towards the viral epidemics.

Table 3. Correlations among variables

	1	2	3	4	5	6	7	8
1. Stress and Anxiety to Viral epidemics	1							
2. Burnout	.303**	1						
3. Emotional fatigue	.292**	.893**	1					
4. Physical burnout	.304**	.791**	.610**	1				
5. Mental burnout	.120	.652**	.432**	.343**	1			
6. Reduced sense of accomplishment	.119	.624**	.451**	.249**	.417**	1		
7. Job stress	.284**	.637**	.618**	.425**	.439**	.405**	1	
8. Turnover intention	.189**	.507**	.542**	.356**	.313**	.229**	.623**	1

** $p < 0.01$ by p -value was derived using Pearson correlation analysis

3.4 Factors influencing the turnover intention

To extract significant factors influencing the turnover intention, the stepwise multiple regression analysis was performed by using 3 models using all the variables that were firstly investigated. Among the variables which demonstrated a significant difference in terms of the turnover intention for the general characteristics, the final educational background was treated as a dummy variable, and finally, it is the result of the regression analysis performed of the effect on the turnover intention by using emotional fatigue and job stress as independent variables among the sub-domains of stress, anxiety, and burnout due to the bachelor's degree (ref. community college) and viral epidemics. Among the sub-domains of burnout, mental burnout, physical burnout, and decreased sense of achievement were excluded from the variables as insignificant results. All of the VIF values turned out to be less than 2, indicating that there was no problem of multi-collinearity.

As for Model 1, when the stress and anxiety towards the viral epidemics were input to the regression model as the independent variables, there was a significant correlation with turnover intention ($\beta = 0.189$, $p = 0.007$). The modified explanatory power of this model turned out to be 3.1%.

Model 2 is the result of input for the regression model using stress and anxiety towards the viral epidemics and emotional fatigue and job stress among the sub-domains of burnout as the independent variables. Burnout and emotional fatigue ($\beta = 0.253$, $p < 0.001$) and job stress ($\beta = 0.467$, $p < 0.001$) were significantly related to the turnover intention. Stress and anxiety ($\beta = -0.020$, $p = 0.725$) towards the viral epidemics turned out to be not significant. The modified explanatory power of this model turned out to be 42.3%.

Model 3 is the result of inputting bachelor's degree as an independent variable for the regression model by treating the stress and anxiety, burnout, emotional fatigue, job stress, and final educational attainment in general characteristics as the dummy variables for the viral epidemics. Burnout and emotional fatigue ($\beta = 0.233$, $p = 0.001$), job stress ($\beta = 0.475$, $p < 0.001$), and bachelor's degree ($\beta = 0.142$, $p = 0.008$) turned out to be influencing factors. Stress and anxiety ($\beta = -0.037$, $p = 0.514$) towards the viral epidemics turned out to be not significant. The corrected explanatory power of this model turned out to be 44.0% Table 4.

Table 4. Factors influencing the turnover intention

Variables	Model 1			Model 2			Model 3		
	β	t	p	β	t	p	β	t	p
Stress and Anxiety to Viral epidemics	.189	2.731	.007	-.020	-.352	.725	-.037	-.654	.514
Burnout ; Emotional fatigue				.253	3.733	<.001	.233	3.471	.001
Job stress				.467	6.881	<.001	.475	7.105	<.001
University (Ref. = College)							.142	2.678	.008
F (<i>p</i>)	7.458 (0.007)			75.260 (<0.001)			54.105 (<0.001)		
R ²	0.036			0.428			0.448		
Adj.R ²	0.031			0.423			0.440		

by stepwise multiple regression analysis $\alpha = 0.05$

dependent variable = Turnover intention

Model 1 = Stress and Anxiety to Viral epidemics

Model 2 = Stress and Anxiety to Viral epidemics + Emotional fatigue + Job stress

Model 3 = Stress and Anxiety to Viral epidemics + Emotional fatigue + Job stress + University

4. Considerations

Dental care facilities are at a high risk of exposure to the COVID-19, and the infectious diseases due to the aerosols generated in the clinic (Ryu et al., 2020). Furthermore, during the epidemic, dental workers suffer from the job stress due to their anxiety about the risk of transmission, discomfort due to wearing protective equipment, and heavy work (Kim, 2017). Such a work environment can adversely affect the psychological and physiological effects (Corle et al., 2010), which can eventually influence as a key predictor of turnover intention. Hence, this study was conducted to examine and understand the relationship between the stress and anxiety of clinical dental hygienists about the viral epidemics and their intention to leave. The important results are as follows.

There were significant differences in terms of the turnover intention according to the participants' final educational background, number of turnovers, and the subjective health status. As for the final educational level, the bachelor's degree demonstrated the highest result, and the master's degree and above demonstrated the lowest result. This was the same as the results of previous studies (Han & Cho, 2016; Kim et al., 2014; Park & Kim, 2013) that demonstrated the low turnover intentions for those with a master's degree or higher. There was a difference from the research result demonstrating the highest turnover intention in the study and the bachelor's degree of this study. As such, the result of the low turnover intention at a master's degree or higher is the result of the previous research (Park & Kim, 2013) that self-efficacy increases when the level of education is high is related to the result of job satisfaction-related research that professional self-concept increases (Min et al., 2019). This is likely to affect the result of a low turnover intention since the higher the educational level, the higher the professionalism in one's field of work (Lee et al., 2022).

In terms of the number of turnovers, 5 or more times turned out to be the highest. This was similar

to the previous study (Oh, 2015) that the number of turnover had a significant difference in the turnover intention. In this study, the high turnover intention of the group with a high turnover rate was considered to be influenced by the idea that they could easily leave the hospital at any time.

The results demonstrated that the worse the subjective health status of the participants, the higher the turnover intention, which was similar to the previous study (Han & Cho, 2016) that demonstrated a significant difference in terms of the turnover intention according to the characteristics of the health related behaviors. This is believed to yield a lower confidence and one's confidence in health, thereby causing a greater anxiety and stress about the infections.

The participants' stress and anxiety towards the viral epidemics were on a scale of 1-5 with a score of 3.56. According to a previous study (Okajima et al., 2021), an average of 3.69 points turned out to be in a survey of health care workers in the range of 1-4 points. This study demonstrated lower results than the previous studies'. These results are for the medical workers who are directly responding to the COVID-19 confirmed patients. However, since the dental hygienists do not directly respond to the COVID-19 confirmed patients, there seems to be a difference against the results of previous studies.

The highest score for job stress turned out to be 3.16, which was higher than 3.00 points, which was the result of a study related to the job stress before the COVID-19 (Won & Oh, 2015). It is considered that the job stress was higher than the situation before the COVID-19 due to physical burdens and anxiety about the spread of infection given the increase in the quarantine work in the context of an infectious disease epidemic. A previous study on the nurses (Jun et al., 2021) also demonstrated that the job stress and fatigue increase burnout, and hence, it is considered necessary to reduce the job stress by improving the work environment.

The average of burnout turned out to be 3.04 out of 5, and the physical burnout was the highest with 3.74. It was similar to 3.05 points, which was the research result on burnout of dental hygienists before the COVID-19 (Yun & Min, 2019). A study on the nurses caring for the COVID-19 patients (Park et al., 2021) also demonstrated a moderate level of 3.22, and the more physical symptoms, the higher the burnout score. The burnout of clinical dental hygienists was found to be similar to that of nurses directly responding to COVID-19 patients. The repetition of burnout causes the job stress for the dental hygienists and further leads to a decline in the quality of life, which has a negative effect (Kim, 2020; Yun & Min, 2019). Hence, the efforts to alleviate the job stress and burnout of dental hygienists will be required.

The turnover intention turned out to be 3.44 points out of 5 points, which was higher than Lee (2013)'s 3.10 points and Min et al. (2015)'s 3.02 points, which are the studies related to the turnover intention of the dental hygienists before the COVID-19. It is considered that the level of turnover intention has also increased as anxiety about the infectious diseases, job stress, and the burnout have increased given the COVID-19 pandemic situation.

Stress and anxiety and burnout, job stress, and turnover intention for the viral epidemics demonstrated a positive correlation. This means that the higher the stress and anxiety about a viral infection, the higher the job stress, burnout, and turnover intention. In a previous study (Jang, 2021), it was found that there was a positive correlation between job burnout, stress, and turnover intention of treatment and quarantine personnel given the COVID-19 epidemic situation. This result has the

same context as the result of this study. In the COVID-19 pandemic situation, fatigue is increased due to the new work environment and the needs of patients, and job stress is increased given the anxiety about the transmission of the infectious diseases and excessive workload (Lee et al., 2022; MeAlonan et al., 2007). Such matters eventually lead to burnout, which might further lead to negative results, and can influence as a key predictor of the turnover intention. Hence, it is considered that a continuous management through the application of psychological support that can mediate the burnout and job stress or programs that can improve mental health is required.

Lastly, the stepwise multiple regression analysis was performed to examine and understand the factors which influence the the turnover intention of the clinical dental hygienists. Stress and anxiety towards the viral epidemics were correlated with turnover intention, yet as a result of the regression analysis performed, they did not act as the key influential factors. In a study related to the nurses' turnover intention during the MERS outbreak, it turned out that the MERS stress did not have a significant effect on the turnover intention, demonstrating a similar context for the result of this study (Jung et al., 2017). This indicates that the subject's job stress and burnout turned out to be higher than the stress and anxiety towards the viral epidemics, thereby suggesting that the job stress and burnout acted as the key influential factors for the turnover intention. Furthermore, a study on stress and anxiety conducted two years into the COVID-19 pandemic, believes that fear associated with the pandemic has passed its peak, in line with the current trend of asymptomatic patients and patients with mild cold symptoms.

However, it was reported that anxiety, depression, and burnout, which are common among the health care workers during the epidemic period of a new infectious disease, emerge even after the acute period and end of the epidemic (Lee, 2021). Hence, it is considered necessary to conduct a follow-up study on the stress and anxiety of clinical dental hygienists after the end of the program to examine and understand the difference between stress and anxiety. Furthermore, since the academic background seems to have an effect on the turnover intention, efforts should be made to increase professionalism and build the self-esteem as a professional through the continuous self-development and the education of dental hygienists.

This study has limitations in generalizing the results by extracting the convenience from some of the clinical dental hygienists serving in the Seoul metropolitan area and the Chungcheong region. Moving forward, it would be necessary to select an even broader range of subjects and repeat the study. Furthermore, it has a limitation in that it did not investigate various factors related to viral epidemics that affect the subjects other than the job stress and burnout. Hence, based on the follow-up studies, it would be necessary to consider adding the research methods and components to articulate and uncover the causal relationship between each factor and stress and anxiety towards the viral epidemics. Furthermore, it is considered that it would be necessary to develop a program to lower the turnover intention by finding the ways to improve burnout and job stress discussed in this study.

Notwithstanding such limitations, this study discovered that there was a significant correlation between the stress, anxiety, burnout, job stress, and the turnover intention of dental hygienists about the viral epidemics. It is also meaningful in that it identified the anxiety and stress levels of clinical dental hygienists working in medical institutions in the context of the COVID-19 pandemic.

5. Conclusion

This study was conducted to examine and understand the relationship between the stress and anxiety towards the viral epidemics among the clinical dental hygienists and their intention to leave. The key results of the data collection and analysis of the 204 clinical dental hygienists serving at dental hospitals and clinics are as follows.

It was discovered that some of the clinical dental hygienists had a significant correlation between the stress, anxiety, burnout, job stress, and their turnover intention for the viral epidemics, and it was discovered that burnout and job stress had an effect on the turnover intention during the infectious disease outbreak. Hence, in the current situation where the COVID-19 epidemic has prolonged, it would be necessary to pay close attention to and consider the stress and burnout of the clinical dental hygienists. Furthermore, it would be considered necessary to provide sufficient rest, provide a safe work environment, and apply coping and management programs to help alleviate their job stress and burnout.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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