

The Level and Intensity of Emotional Labor of Clinical Dental Hygienists

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ARTICLE INFO

Article history:

Received 21 January 2021

Revised 25 February 2021

Accepted 10 March 2021

Keywords:

Dental Hygienist,
Emotional Damage,
Emotional Dissonance,
Emotional Harmony,
Emotional Labor

ABSTRACT

The purpose of this study is to examine the level and intensity of emotional labor of dental hygienists and seek ways to increase job satisfaction by minimizing emotional labor. Dental hygienists working at dental clinics in Seoul and Gyeonggi regions were surveyed via a self-written questionnaire using a random sampling method. The results of analyzing data from a total of 251 dental hygienists surveyed are as follows ;

1. Emotional labor scored 3.40 points, emotional harmony 3.91 points, emotional discord 2.95 points, and emotional damage 3.33 points.
2. The higher the surface acting when dealing with customers, the higher the superficial behavior, customer rudeness, discrimination, and emotional repression, and the higher the discrimination, the higher the surface acting when responding to customers, superficial behavior, and customer rudeness. The higher the inner behavior, the higher the emotional repression, but the lower the superficial behavior and discrimination. Therefore, it is necessary to recognize the importance of emotional labor management for dental hygienists, and managers and middle managers need to devise management measures to minimize emotional labor at an organizational level. along with efforts made by dental hygienists.

1. Introduction

Dental hygienists, who must always treat patients kindly in order to respond to the emotional needs of the patients, need to deal with a lot of emotional labor when interacting with patients, guardians, and medical staff (Jung, 2016). In order to satisfy patients with the best medical service, they must perform their work whether they are in emotional pain or in a pleasant situation (Kim, 2009).

Emotional labor refers to trying to control or limit one's emotions in order to satisfy others for them to feel that they are well cared for (Kim, 2008). Such emotional labor can be influenced by various variables such as job characteristics, social support, self-control abilities, and personal characteristics. Personality, one of the personal characteristics, can be considered as a factor influencing how one perceives the degree of emotional labor, affecting the intensity of stress caused by emotional labor and job attitude (Cha et al., 2009).

Mental or physical effects of emotional labor can be a serious threat to dental hygienists as they experience the frequency of emotional expression, the degree of emotional expression, the diversity of emotions expressed in the job, and the disharmony of emotions. Dental hygienists control their emotions while making face-to-face contact with various people on the job and providing services to patients, e.g. showing kindness, smile, and warm care. In fact, dental hygienists were found to belong to the occupation group closely connected to emotional labor along with operators and nurses (KEIS, 2015).

Recently, as medical institutions have entered into an unlimited competition, they are introducing management strategies of corporate organizations as an attempt to maximize management profits and customer satisfaction (Kang, 2002). To this end, most medical institutions require their employees to perform a form of emotional labor similar to those in the service industry. Also, since the main customers of medical institutions are patients or guardians, the intensity of emotional labor experienced by medical institution workers may be higher than that of the service industry workers. Jeong and Kim (2006) found that patients are more likely to be relatively less relaxed as they have somewhat weaker mental and physical condition, and they can complain even when they receive the correct response. Explicit and implicit norms of expression are required, and the intensity of emotional labor they experience is expected to be high. Although a complete consensus has not yet been reached on the health effects of emotional labor on workers, it has been reported that it leads to negative health conditions such as burnout, emotional dissonance, intention to turn over, and job dissatisfaction (Brotheridge & Grandy, 2002; Pugliesi, 1999).

A recent study of emotional labor for dental hygienists (Yoon et al., 2018; Hyeong & Jang, 2019; Jeung, 2019; Choi et al., 2018; Park et al., 2017) investigated influential factors of emotional labor from various angles, including job satisfaction, job immersion, job exhaustion, job stress, anxiety, sleep, etc. and found that the lower the emotional labor, the higher the job satisfaction and job commitment, and the higher the emotional labor, the higher the effect on job stress, anxiety and sleep quality.

However, not many studies were conducted to solely examine the level and intensity of emotional labor. Thus, the study was carried out focusing on emotional labor. Therefore, this study is highly expected to provide basic data for the development of a program that can increase satisfaction for various tasks with minimal emotional labor, confirm the degree of emotional labor, and create a work environment pursued and supported by dental hygienists.

2. Research method

2.1 Research subject and method

This study was conducted after deliberation by the 00 University Bioethics Committee (IRB No. 1044371-202008-HR-001-02). Clinical dental hygienists working in Seoul and Gyeonggi province conducted a self-contained survey by random sampling method with a sample size having a significance level of 0.05, intermediate effect size of 0.25, and a power of 0.95 using G*Power 3.1.9.2. Considering the loss rate, the questionnaires were distributed to 260 people and a total of 251 copies were

used for analysis, excluding questionnaires with missing values. Responses obtained from surveying 195 people from October 1 to October 30, 2020 were analyzed.

2.2 Research tools

The tool used in this study was Choi (Choi, 2017)'s emotional labor measurement tool. The questionnaire has a total of 25 questions, consisting of 5 general characteristics and 20 others on emotional labor, emotional harmony (3 questions for inner behavior), emotional dissonance (4 questions for emotional suppression, 3 questions for forced customer response, 3 questions for surface acting), and emotional damage (customer 3 questions of rudeness and 4 questions of discrimination). The questions were calculated on a 5-point scale - 5 points for 'Very much' and 1 point for 'Not at all', and the reliability of the content, measured in Cronbach's α , was found to be $\alpha = 0.726$, and $\alpha = 0.661$, respectively for emotional harmony, emotional dissonance, and emotional damage.

Emotional labor in the study is defined as the control and limit for one's emotions according to the needs of clients and organizations while interacting with subjects in a dental clinic, expressing emotions that one does not feel, or refers to the labor of managing one's emotions (Choi, 2017). The higher the score, the higher the intensity of emotional labor.

2.3 Statistical analysis

The statistical program of IBM SPSS Statistics Ver. 21.0 (IBM Co. Armonk, NY, USA) was used to process the collected data for statistical analysis. According to the characteristics of the survey data, the general characteristics are frequency and ratio, and descriptive statistics were analyzed for each level, and the t-test and ANOVA were performed for the difference in each area according to the general characteristics. If there was a statistically significant difference in the analysis of variance, it was post-tested using the Duncan multiple range test. Correlation with each domain was analyzed with Pearson's correlation coefficient. The significance level for determining significance was set to 0.05.

3. Results

3.1 General characteristics

Looking at the general characteristics of the study subjects, the majority of the participants were between the age of 20 and 29 years old (57.8%), followed by 30-39 years old (24.3%), and 40 years old (17.9%). Most of them had experience between 1-5 years (38.6%), followed by 15 years or more (18.3%), 5-10 years (17.5%), 10-15 years (13.1%) and less than 1 year (12.4%). 61.4% of the questionnaires were distributed to dental clinics and 38.6% to universities and general hospitals. 73.3% were married and 26.4% were not married. 48.2% of the participants graduated from a university, 43.8% from a college, and 8.0% had a master's degree or higher Table 1.

Table 1. General characteristics of the subjects

Characteristics	Divisions	N(%)
Age	20-29	145(57.8)
	30-39	61(24.3)
	More than 40	45(17.9)
Work period (yrs.)	Less than 1	31(12.4)
	1-5	97(38.6)
	5-10	44(17.5)
	10-15	33(13.1)
	More than 15	46(18.3)
Workplace	Dental clinic	154(61.4)
	Dental hospital(University Hospital)	97(38.6)
Marital status	Married	67(26.4)
	Not married	184(73.3)
Education	College	110(43.8)
	University	121(48.2)
	Master's or more	20(8.0)
Total		251(100.0)

3.2 The degree of emotional labor

The degree of emotional labor of dental hygienists is shown in Table 2.

Emotional harmony scored 3.91 points, emotional dissonance 2.95 points, and emotional damage 3.33 points. The overall level was 3.40 points. In emotional dissonance, emotion suppression was 3.48 points, surface acting 2.69 points, forced customer response 2.51 points, and in emotional damage, customer rudeness was 3.86 points and discrimination was 2.94 points.

Table 2. The degree of emotional labor

Items	Mean±SD*
Emotional harmony	3.91±0.59
Deep acting	3.91±0.59
Emotional dissonance	2.95±0.50
Emotion suppression	3.48±0.62
Forced customer response	2.51±0.82
Surface acting	2.69±0.74
Emotional damage	3.33±0.58
Customer rudeness	3.86±0.66
Discrimination	2.94±0.78
Total	3.40±0.36

* The highest score is 5 in a five-point Likert scale.

3.3 Degree of emotional labor according to general characteristics

The difference in emotional labor according to general characteristics is shown in Table 3. In terms of age, emotional harmony was found to be increasing with age, but there was no statistical

difference. In terms of career, no difference was found in any area. At work, universities and general hospitals had higher emotional harmony and emotional dissonance than dental clinics, less emotional damage, and statistically significant differences in emotional harmony. In terms of marital status, married people were found to have a higher level of emotional harmony and emotional dissonance compared to unmarried people. Their emotional damage was lower compared to their counterpart, and there were statistical differences in emotional harmony. There was no statistical difference in academic background; however, those whose educational background involves graduate school or higher level of education, were found to have a high level of emotional harmony and emotional dissonance with a low level of emotional disorder.

Table 3. Emotional labor by general characteristics

Characteristics	Divisions	Emotional harmony (Mean±SD)	Emotional dissonance (Mean±SD)	Emotional damage (Mean±SD)
Age	20-29	3.86±0.60	2.92±0.48	3.34±0.60
	30-39	3.93±0.58	3.01±0.51	3.35±0.57
	More than 40	4.05±0.55	2.96±0.54	3.31±0.53
	F(p*)	1.791(0.169)	0.751(0.473)	0.050(0.952)
Work period (yrs.)	Less than 1	4.06±0.68	2.92±0.47	3.15±0.66
	1-5	3.84±0.57	2.94±0.52	3.35±0.61
	5-10	3.82±0.65	2.83±0.40	3.46±0.49
	10-15	4.05±0.46	3.17±0.50	3.34±0.57
	More than 15	3.96±0.59	2.95±0.54	3.30±0.53
	F(p*)	1.550(0.188)	2.196(0.070)	1.317(0.264)
Workplace	Dental clinic	3.76±0.59	2.92±0.51	3.36±0.58
	Dental hospital (University Hospital)	4.10±0.58	3.00±0.49	3.30±0.58
	t(p*)	-1.917(0.045*)	-1.200(0.231)	0.813(0.417)
Marital status	Married	4.11±0.55	2.99±0.56	3.26±0.61
	Not married	3.78±0.60	2.94±0.48	3.36±0.57
	t(p*)	1.825(0.040*)	0.664(0.507)	-1.162(0.246)
Education	College	3.85±0.59	2.96±0.54	3.39±0.57
	University	3.96±0.58	2.92±0.45	3.29±0.57
	Master's or more	4.00±0.64	3.09±0.60	3.32±0.70
	F(p*)	1.078(0.342)	0.996(0.371)	0.898(0.409)

* by t-test or one-way ANOVA

3.4 Correlation between levels

Table 4 shows the correlation between detailed areas of emotional labor. Items with statistically significant positive correlations were forced customer response and surface acting (r=0.486), intrinsic behavior and emotional suppression (r=0.447), forced customer response and discrimination (r=0.446), surface acting and discrimination (r=0.317), superficial behavior and customer rudeness (r=0.294), customer rudeness and discrimination (r=0.227), emotion suppression and forced customer reaction (r=0.189), forced customer reaction and customer rudeness (r=0.164) The items showing a statistically

significant negative relationship were inner behavior and surface acting ($r=-0.191$), inner behavior and discrimination ($r=-0.146$). The higher the forced customer response, the higher the surface acting, customer rudeness, discrimination, and emotional inhibition, and the higher the discrimination, the higher the forced customer response, surface acting, and customer rudeness. The higher the deep acting, the higher the emotional inhibition, but the lower the superficial behavior and discrimination.

Table 4. Correlation analysis between sub-areas

Variables	Deep acting	Emotion suppression	Forced customer response	Surface acting	Customer rudeness	Discrimination
Deep acting	1.000					
Emotion suppression	0.447 ($<0.001^*$)	1.000				
Forced customer response	-0.041 (0.523)	0.189 (0.003*)	1.000			
Surface acting	-0.191 (0.002*)	0.064 (0.313)	0.486 ($<0.001^*$)	1.000		
Customer rudeness	0.081 (0.203)	0.109 (0.086)	0.164 (0.009*)	0.294 ($<0.001^*$)	1.000	
Discrimination	-0.146 (0.021*)	-0.079 (0.212)	0.446 ($<0.001^*$)	0.317 ($<0.001^*$)	0.227 ($<0.001^*$)	1.000

* $p < 0.05$ by Pearson's correlation analysis

4. Discussion

Emotional labor has been reported to increase psychological stress at work, leading to negative consequences such as turnover (Brotheridge & Lee, 2002; Grandey, 2000; Nixon et al., 2011). In addition, many studies have reported that emotional labor poses a serious threat to workers, organizations and national competitiveness by causing depletion in workers' occupational efficiency, leading to turnover, negative job attitudes, and decreased productivity. which (Cameron & Pierce, 1994; Lee, 1996).

According to the theory of cognitive dissonance (Hobfall, 2002), even if you have to or cannot express emotions that are different from what you feel, you may not feel uncomfortable or tense as long as you do not compromise the concept. In other words, emotional harmony is what emotional workers experience when they perform emotional labor on the surface and threaten their self-concept. Conducting emotional labor, such as surface acting, in which workers follow the standard of expression given by their organization, regardless of the actual feelings, may conflict with their actual feelings. They experience situations or conditions that exist, and emotional dissonance is recognized as a kind of psychological conflict that workers have as a result of the performance of such emotional labor.

As a result of this study, the level of emotional labor of the subjects was 3.40, showing 3.91 points for emotional harmony, 2.95 points for emotional dissonance, and 3.33 points for emotional damage. The score of 3.37 was almost the same as that of Kim (Kim, 2019) and was lower than

that of Kim (Kim, 2018). In the study of Yoon and Kim (Yoon & Kim, 2011), it was confirmed that they were experiencing moderate to higher emotional labor of 2.74 on a 4-point scale. The frequency of emotional expression was 3.65 points, the degree of attention to emotion expression was 3.17 points, and the emotional dissonance was 3.08 points. Dental hygienists conduct a higher level of emotional labor when displaying intimacy with patients regardless of their own feelings, and the more they interact with patients, guardians, and colleagues, the higher the possibility of job exhaustion due to emotional labor (Jung, 2016).

Among them, deep acting (emotional harmony) is an effort to actually feel and express the expression standard set by an organization, and thus actively strive to change body and mind (Ashforth & Humphrey, 1993). Individuals manage their emotions and expressions according to the emotion expression rules established by an organization when conducting emotional labor on their job site and endeavor to change their actual emotions in a desirable direction (Hong, 2016). When real emotions do not match the organizational demands, emotional dissonance creates a lot of conflict and work stress. Dental workers are faced with a situation in which they have to speak differently from their feelings or convey the feelings requested by the hospital, so support and systematic policy within the organization are required to manage the emotional labor of dental hygienists.

As a result of analyzing the differences in emotional labor according to general characteristics, emotional harmony by age was high, but there was no statistical difference. The areas of emotional harmony and emotional dissonance were high in universities, general hospitals, among married people, and those whose educational background involves graduate school or a higher. In the results of Kim (Kim, 2019), when the clinical experience was low or when the salary was low, there was more emotional labor, and the higher the emotional labor, the lower the organizational efficiency. In the study of Jung (Jung, 2016), the level of emotional labor of dental hygienists is more affected as the size of the hospital increases, and that the more emotional labor, the lower the self-esteem and increase the job stress. In the study of Lee et al. (Lee et al., 2014), People who work in dentistry and want to change their job have been found to have an impact on emotional work. In the research results of Yoon and Kim (Yoon & Kim, 2011), general hospital work was the highest with 3.11 points, and dental hospitals had the lowest with 2.61 points. However, in general hospitals, severely ill and sensitive patients receive more treatment than general patients. Emotional labor seems to have been highly analyzed due to its large scale and large number of members.

The higher the experience, the higher the emotional workforce of the employee than the middle or practical manager (Choi et al., 2014). It is judged that emotional labor is also experienced by controlling one's emotions while providing patient-centered medical services.

Research by Han (Han, 2005) found that emotional dissonance, which refers to the endeavor to show feelings that one does not actually feel or have, was associated with stress and job dissatisfaction, and Yeo (Yeo et al., 2016)'s study also suggested that emotional dissonance and emotional burnout were associated with increased turnover intentions. The study of Han (Han, 2005) showed that individuals and dental institutions should work together to solve the emotional dissonance problem. As such, the emotional labor problem of dental hygienists cannot be limited to individual problems or dental hygienists, and cooperation with dental medical institutions and patients is necessary.

As a result, dental hygienists must recognize the importance of emotional labor management,

and since emotional labor of dental hygienists is related to the job, rather than personal matters, managers and middle managers must seek strategies to minimize emotional labor. Since each individual has a different sense of emotional labor, for effective management, it is necessary to manage emotional labor at the organizational level, taking into account clinical experience, etc., along with efforts made by dental hygienists

This study has a limitation in generalizing the study results to all dental hygienists because subjects were selected by random sampling in Seoul and Gyeonggi areas. The measurement tools in this study relied on the respondents' subjective self-writing method, so the risk of response bias cannot be ruled out. Despite these limitations, there is a significance in grasping the level of emotional labor of dental hygienists.

5. Conclusion

This study aims to provide basic data so that dental hygienists can actively demonstrate their dental hygiene capabilities by checking the degree of emotional labor and seeking ways to increase job satisfaction with minimal emotional labor. A survey was conducted on dental hygienists working at dental clinics in Seoul and Gyeonggi-do, and the results of data analysis on a total of 251 people are as follows.

1. Emotional labor scored 3.40 points, emotional harmony 3.91 points, emotional discord 2.95 points, and emotional damage 3.33 points.
2. Emotional harmony increases with age. The areas of emotional harmony and emotional dissonance were high in colleges and general hospitals, and among married people and those whose educational background involves graduate school or higher level of education. There were statistically significant differences in emotional harmony between universities, general hospitals, and married people.
3. The higher the surface acting when treating customers, the higher the superficial behavior, customer rudeness, discrimination, and emotional repression, and the higher the discrimination, the higher the forced customer reaction, superficial behavior, and customer rudeness. The higher the inner behavior, the higher the emotional repression, but the lower the superficial behavior and discrimination.

Therefore, it is necessary to recognize the importance of emotional labor management of dental hygienists, managers and middle managers should seek a management plan that can minimize emotional labor at the organizational level, along with efforts made by dental hygienists.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

References

- Ashforth, B. E., & Humphrey, R. H. (1993). Emotional labor in service roles: the influence of identity. *The Academy of Management Review*, 18(1), 88-115.
- Brotheridge, C. M., & Grandy, A. A. (2002). Emotional labor and burnout: Comparing two perspectives of “people work”. *Journal of Vocational Behavior*, 60(1), 17-39.
- Brotheridge, C. M., & Lee, R. T. (2002). Testing a conservation of resources model of the dynamics of emotional labor. *Journal of Occupation Health Psychology*, 7(1), 57-67.
- Cameron, J., & Pierce, D. (1994). Reinforcement, reward, and intrinsic motivation: A metaanalysis. *Review of Educational Research*, 64(3), 363-423.
- Cha, S. K., Shin, Y. S., Kim, K. Y., Lee, B. Y., Ahn, S. Y., Jang, H. S., Kwon, E. J., & Kim, D. H. (2009). The degrees of emotional labor and the its related factors among clinical nurses. *Journal of Korean Clinical Nursing Research*, 15(2), 23-35.
- Choi, B. K. (2017). *Development and validation of the emotional labor scale for dental hygienists* (Doctor’s dissertation). Dankook University of Korea.
- Choi, B. K., Kim, J. S., & Ha, M. N. (2018). Effects of emotional labor and job characteristics on job stress and turnover intention in dental hygienists using the structural equation model. *Journal of Korean Socirty of Dental Hygiene*, 18(1), 31-42.
- Choi, H. J., Bang, H. J., Chung, E. Y., & Seo, Y. J. (2014). Factors that affect the level of emotional labor in dental hygienists. *Journal of Dental Hygiene Science*, 14(3), 295-301
- Grandey, A. A. (2000). Emotional regulation in the workplace: a new way to conceptualize emotional labor. *Journal of Occupation Health Psychology*, 5(1), 95-110.
- Han, J. W. (2005). The effects of personality and emotional labor stress on job satisfaction. *Journal of Secretarial Science*, 14(1), 145-167.
- Hobfall, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6(4), 307-324.
- Hong, J. Y. (2016). *Development and validation of the emotional labor scale for nurses* (Doctoral dissertation). Ewha Womans University of Korea.
- Hyeong, J. H., & Jang, Y. J. (2019). A study on emotional labor and occupational stress in dental hygienists. *Journal of Korean Socirty of Dental Hygiene*, 19(6), 1003-1013.
- Jeung, D. Y. (2019). Effects of emotional labor, organizational climate, and job involvement on turnover intention in Korean dental hygienists. *Journal of Korean Socirty of Dental Hygiene*, 19(5), 813-824.
- Joung, M. S., & Kim, K. J. (2006). A Study on the effect of emotional labor and leader’s emotional intelligence on job satisfaction and organizational commitment for nurses. *The Korean Journal of Hospital Management*, 11(4), 1-18.
- Jung, E. K. (2016). Relationship between emotional labor and burnout among dental hygienists. *Journal of Korean Socirty of Dental Hygiene*, 16(1), 53-59.
- Kang, H. A. (2002). *Changes in nursing professional labor*. *Economy and society*, 55, 142-168.
- Kim, H. H. (2008). Analysis of relationship between job performance and emotional labor of hotel employee. *Journal of Tourism Science*, 29, 128-144.

- Kim, J. Y. (2018). Convergence Effects of Empathy Ability, Emotional Intelligence on Emotional Labor in some Dental Hygienists. *Journal of the Korea Convergence Society*, 9(5), 53-60.
- Kim, S. G. (2009). An exploratory study on the emotional labor in public sector: focused on street-level bureaucrats in the civil service system. *The Korean Journal of Local Government Studies*, 13(1), 51-70.
- Kim, Y. I. (2019). A Study on effects of emotional labor and emotional intelligence of dental hygienist on organizational effectiveness. *Journal of the Korea Academia-Industrial cooperation Society*, 20(9), 390-396.
- Korea Employment Information Service (KEIS). Comparative analysis by emotional labor occupation. news release [Accessed 2015 Oct 14] Retrieved from <http://news.moel.go.kr/newshome/mtnmain.php?sid=&stext=&mtkey=articleview&mkey =scatelist&mkey2=46&aid=6049& bpage=106>
- Lee, M. J., Kim, Y. N., & Lee, S. Y. (2015). A Study on Factors Affecting Emotional Labor of Clinical Dental, Hygienist. *Journal of Dental Hygiene Science*, 15(2), 113-118.
- Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, 81(2), 123-133.
- Nixon, A. E., Mazzola, J. J., Bauer, J., Krueger, J. R., & Spector, P. E. (2011). Can work make you sick? A meta-analysis of the relationships between job stressors and physical symptoms. *Work Stress*, 25(1), 1-22.
- Park, H. Y., Jang, G. W., Lee, G. H., Lee, M. K., Lee, G. W., Iim, Y., Lee, J. R., & Kim, H. J. (2017). The effects of emotional labor of dental hygienist on the job stress, anxiety and sleep. *Journal of Korean Society of Dental Hygiene*, 17(3), 449-463.
- Pugliesi, K. (1993). The consequences of emotional labor: Effects on work stress, job satisfaction, and well-being. *Motivation and Emotion*, 23(2), 125-154.
- Yeo, H. J., Park, J. Y., & Moon, J. Y. (2016). A study of display rule for none face-to-face emotional worker's job satisfaction. *Journal of Korean Society Quality Management*, 44(3), 649-660.
- Yoon, S. U., & Kim, J. S. (2011). Relations between emotional labor and job stress among some dental hygienists. *Journal of Korean Society of Dental Hygiene*, 11(2), 179-188.
- Yoon, S. U., Oh, N. R., & Jeong, M. A. (2018). Influence on Job Satisfaction of Emotional Labor Accordance to Working Properties and Patients Type of Dental Hygienist. *Journal of Contents Association*, 18(9), 199-208.