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Association of Emotional Labor, Self-efficacy, and Type A Personality with Burnout in Korean Dental Hygienists

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The purpose of this study was to examine the relationship between emotional labor and burnout, and whether the levels of self-efficacy and type A personality characteristics increase the risk of burnout in a sample of Korean female dental hygienists. Participants were 807 female dental hygienists with experience in performing customer service for one year or more in dental clinics, dental hospitals, or general hospitals in Korea. Data were collected using a structured self-administered questionnaire. A hierarchical multiple linear regression analysis was used to examine the effects of emotional labor on burnout, and to elucidate the additive effects of self-efficacy and type A personality on burnout. The results showed that "overload and conflict in customer service," "emotional disharmony and hurt," and "lack of a supportive and protective system in the organization" were positively associated with burnout. With reference to the relationship between personality traits and burnout, we found that personal traits such as self-efficacy and type A personality were significantly related to burnout, which confirmed the additive effects of self-efficacy and type A personality on burnout. These results indicate that engaging in excessive and prolonged emotional work in customer service roles is more likely to increase burnout. Additionally, an insufficient organizational supportive and protective system toward the negative consequences of emotional labor was found to accelerate burnout. The present findings also revealed that personality traits such as self-efficacy and type A personality are also important in understanding the relationship between emotional labor and burnout.

Keywords: Emotional Labor; Burnout; Self-efficacy; Type A Personality; Dental Hygienists

INTRODUCTION

Service plays an important role in today's world economies. Service-related activities now account for about 70% of the gross domestic product in the United States as well as in European countries (1). With the expansion of service industry, emotional labor has now been recognized as an emergent job stress. Emotional labor is likely to be prevalent and ubiquitous for employees in the field of most industries, not just those entailing service to the public.

Starting with the work by Hochschild (2), the body of research on emotional labor has been expanding in the last 3 decades. The impact of emotional labor may lead to negative attitudes and poor health for the employee (2,3). Although emotional labor may be helpful to organizations, recent work suggests that managing emotions, or emotion regulation, may be detrimental to the employee. Hochschild (2) and her colleagues have proposed that emotional labor is stressful and may result in burnout. Zapf (4) found that emotional work, combined with organizational problems, were associated with high levels of burnout. High emotional demands and high role-conflicts had an impact on burnout. Research on burnout finds its roots in the service industry, and has focused on sales, caregiving, and service occupations, in which the core aspect of the job is the relationship between the service provider and recipient/client (5).

The extent to which employees engage in emotion regulation or managing emotion is associated with stress-related physiological arousal and job strain and conflict that are expressed in the form of poor work attitudes and job burnout (6-8). Moreover, these outcomes are particularly problematic for health care professionals, where absence and decreased job performance can harm patient health as well (9). Although previous research on burnout has focused on environmental factors, it is likely that personal trait factors also play a crucial role in the development of burnout (5).

Several researchers emphasized the roles and importance of personality traits with reference to burnout, and revealed the moderating role of within-personal experiences of emotional labor over time and personality variables (10). Of them, type A personality and self-efficacy have seemed to be considered as

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moderators or mediators. Self-efficacy refers to an individual's belief in his or her capability to organize and execute a course of action needed to meet the demands of a situation (11). While burnout represents a crucial and one of the most frequently investigated outcomes of job stress (5), self-efficacy beliefs represent key modifiable cognitions that may protect workers from negative outcomes of job stress (12). Employees with low self-efficacy are likely to harbor pessimistic thoughts about their future accomplishments and personal development (13).

Behavior pattern as a protective factor has long been implicated as a risk factor for health. Type A behavior or personality, as conceptualized by Friedman and Rosenman (14), describes such type of people as impulsive, competitive, aggressive, impatient, and more susceptible to developing the symptoms of coronary heart disease. As a consequence, type A individuals have difficulties in coping with job stress. Previous studies demonstrated a significant relationship between job tension and the linear combination of type A personality and job characteristics. Froggatt and Cotton (15) found that type A individuals experience more stress when their volume of workload increases. Research shows that feelings of burnout cannot be separated from individuals' personality type (16).

Today, most organizations control or regulate employees' emotions to achieve their organizational goals. These leads to overload, tensions, and conflicts, and result in emotional damage and hurt in the employees. In addition, organizations constantly monitor the employees' display rules, and reinforce the expression of fake emotions or smiling at the clients or customers. These regulations and requirements are more common in jobs that require a high level of interaction with customers or clients.

Dental hygienists have been recognized as caregivers whose job is emotionally demanding or it requires emotional regulation. Furthermore, they experience emotional dissonance when the clients require and complain about the services that were given. According to a survey, dental hygienists were ranked at the top 2 in a sample of Korean health providers (n = 20,156) (17).

The purpose of this study was to examine the relationship between emotional labor and burnout, and whether the extent of self-efficacy and type A personality increased the risk of burnout in a sample of Korean female dental hygienists. This study provides empirical evidence for the hypothesized relationships of emotional labor and personal traits such as self-efficacy and type A personality with burnout, and provides the basis for future research and theory building on this topic.

MATERIALS AND METHODS

Samples and procedure

The participants of this study were female dental hygienists with experience in performing customer service for one year or more in a clinic, dental hospital, or general hospital in each province in Korea. Data collected from 807 participants were analyzed, excluding those of 6 people who had insincere responses or missing values. This sample amounts to about 3% of the total 27,000 dental hygienists working at the 3 types of dental centers (clinics, dental hospitals, and general hospitals) in Korea, as of 2016.

Data were collected using a structured self-administered questionnaire comprising 7 items on general and occupational characteristics, 24 items on emotional labor, 8 items on self-efficacy, 10 items on type A personality, and 5 items on burnout. A theoretical model of this study is shown in Fig. 1.

Measures

In order to assess the level and intensity of emotional labor, the Korean Emotional Labor Scale (K-ELS) (18), consisting of 24 items across 5 sub factors, was used. In the factor analysis, emotional labor was reconstructed into "emotional demand and regulation (5 items)," "overload and conflict in customer service (3 items)," "emotional disharmony and hurt (6 items)," "organizational surveillance and monitoring (2 items)," and "lack of a supportive and protective system in the organization (8 items)." Each item on emotional labor was rated on a 4-point Likert scale with "disagree completely" '1,' "disagree" '2,' "agree" '3,' and "agree

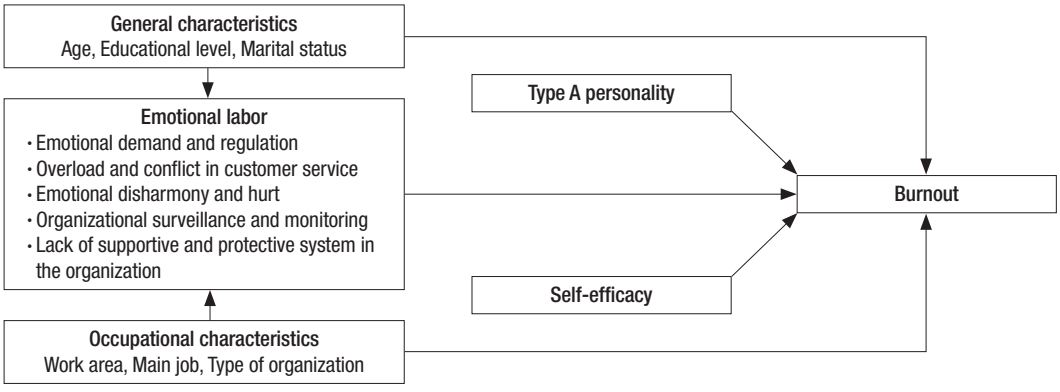

Fig. 1. Theoretical model.

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completely" '4,' The Cronbach's α for the 5 sub factors of emotional labor ranged from 0.668 to 0.868. Self-efficacy was measured using "Self-efficacy scale," which was comprised of 8 items (19). The Cronbach's α of the self-efficacy scale was 0.906. Type A personality was measured using the "Framingham type A Behavior Pattern" (20). This tool consists of 10 items, and the Cronbach's α for the type A personality scale was 0.660. The level of burnout, the final outcome variable of this study, was assessed using the Maslach Burnout Inventory (MBI) (21). The Cronbach's α for burnout was 0.885.

Statistical analysis

Cronbach's α was estimated to measure the reliability of the tools used in this study. The t-test and analysis of variance (ANOVA) were used to compare the levels of emotional labor and burnout based on the general and occupational characteristics. The t-test was also used to compare the burnout level by the sub groups of type A personality and self-efficacy. A correlation analysis was performed to examine the relationship between emotional labor and burnout. A hierarchical multiple linear regression analysis was used to examine the effects of emotional labor on the development of burnout, and the additive effects of self-efficacy and type A personality on burnout. All statistical analyses were performed using SPSS (version 23.0; IBM Corp., Chicago, IL, USA), and $P < 0.05$ was considered significant.

Ethics statement

The study was approved by the Institutional Review Board of Yonsei University Wonju College of Medicine (Approval No. YWMR-15-2-110). Informed consent was obtained from all participants.

RESULTS

The general and job characteristics of the participants are presented in Table 1. The job characteristics of the participants were classified into 3 categories according to the type of dental organization: dental clinic (primary), dental hospital (2nd), general hospital (3rd), and 67.2% of the participants were working in dental clinics.

Table 1. General and occupational characteristics of the participants

Characteristics	No. of participants (n = 807)	%
Age, yr		
≤ 30	611	75.7
31–40	156	19.4
≥ 40	36	4.5
No answer	4	0.5
Education level		
College graduate	535	66.3
Above university	267	33.1
No answer	5	0.6
Marital status		
No	625	78.0
Yes	176	21.8
No answer	6	0.7
Type of dental organization		
Dental clinic (primary)	542	67.2
Dental hospital (secondary)	229	28.4
General hospital (tertiary)	33	4.1
No answer	3	0.3
Work tenure, yr		
≤ 4	455	56.4
5–9	198	24.5
10–14	77	9.5
≥ 15	50	6.2
No answer	27	3.3
Main job*		
Prevention/education	62	7.7
Treatment support	573	71.0
Consultation/administration†	133	16.5
No answer	39	4.8
Working area		
Seoul	258	32.0
Gyeonggi-do	304	37.7
Metropolitan city	114	14.1
Others town	124	15.4
No answer	7	0.9

*Main job: the most common job at work. Duplicate responses are not allowed; †Administration: medical insurance claims, office work, accounting, management, etc.

Table 2. Correlation coefficients and Cronbach's α (in parentheses) of the study variables

Variables	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
① Age, yr	-	-	-	-	-	-	-	-	-	-
② Educational level	–0.023	-	-	-	-	-	-	-	-	-
③ Emotional demand and regulation	0.038	0.090*	(0.743)	-	-	-	-	-	-	-
④ Overload and conflict in customer service	0.143†	0.088*	0.464†	(0.791)	-	-	-	-	-	-
⑤ Emotional disharmony and hurt	0.094†	–0.035	0.498†	0.575†	(0.868)	-	-	-	-	-
⑥ Organizational surveillance and monitoring	0.103†	–0.034	0.254†	0.298†	0.427†	(0.668)	-	-	-	-
⑦ Lack of a supportive and protective system in the organization	0.086*	–0.037	0.193†	0.121†	0.199†	0.166†	(0.761)	-	-	-
⑧ Self-efficacy	0.000	0.069	0.088*	0.115†	0.029	–0.053	–0.135†	(0.906)	-	-
⑨ Type A personality	0.091*	–0.023	0.145†	0.205†	0.307†	0.249†	0.011	0.002	(0.660)	-
⑩ Burnout	–0.153†	–0.082*	0.202†	0.242†	0.359†	0.191†	0.144†	–0.151†	0.422†	(0.885)

*$P < 0.05$; †$P < 0.01$.

We examined whether all the independent variables were related to burnout using a correlation analysis. As shown in Table 2, age (r = –0.153; P < 0.001) and educational level (r = –0.082; P = 0.021) were significantly correlated with burnout. Further, the sub factors of emotional labor, "emotional demand and regulation (r = –0.202; P < 0.001)," "overload and conflict in customer service (r = 0.242; P < 0.001)," "emotional disharmony and hurt (r = 0.359; P < 0.001)," "organizational surveillance and monitoring (r = 0.191; P < 0.001)," and "lack of a supportive and protective system in the organization (r = 0.144; P < 0.001)," as well as self-efficacy (r = –0.151; P < 0.001), and type A personality (r = 0.422; P < 0.001) had significant correlations with burnout.

In order to analyze the relationship of the 5 sub factors of emotional labor, self-efficacy, and type A personality with burnout, a hierarchical multiple linear regression analysis was performed. The findings are presented in Table 3.

Model 1 included age, educational level, type of dental organization, and main job into the model. In model 2, the 5 subfactors of emotional labor: "emotional demand and regulation," "overload and conflict in customer service," "emotional disharmony and hurt," "organizational surveillance and monitoring," and "lack of a supportive and protective system in the organization" were entered. In model 3, we added self-efficacy. Finally, we added type A personality in model 4. As a result, the fits of the 4 models were statistically significant. The variance inflation factor (VIF) was used to diagnose the problem of multicollinearity among all the independent variables, and it was revealed that there was no problem related to multicollinearity.

In model 1, age and type of dental organization were associated with burnout. Younger dentists (t = –2.718; P = 0.007), and those working in a dental hospital (2nd) (t = 2.435; P = 0.015) showed higher levels of burnout as compared to their counterparts. In model 1, these 6 variables accounted for 4.2% of the variance in burnout. In model 2, the 5 factors of emotional labor were added, and 3 factors, "overload and conflict in customer service" (t = 2.749; P = 0.006), "emotional disharmony and hurt" (t = 6.404; P < 0.001), and "organizational supportive and protective system" (t = 2.850; P = 0.004) were positively related to burnout. In other words, if people experience overload and conflict, and emotional disharmony and hurt while fulfilling customer service roles, they are more likely to experience increased burnout. In addition, the lack of a supportive and protective system in the organization toward the negative consequences of emotional labor (e.g., clients' violence) is found to be associated with burnout. In model 2, the 3 variables explained 21.1% of the variance in burnout. Model 3 included self-efficacy. Results showed that dental hygienists with low self-efficacy had significantly higher levels of burnout (t = –4.126; P < 0.001). In model 3, self-efficacy increased 1.9% of the R^2 change of the variance in burnout. Finally, in model 4, we found that type A personality had a significant effect on burnout. People with type A personality tended to have higher burnout as compared to those with type B (t = 10.627; P < 0.001). In model 4, having a type A personality increased 10.6% of the R^2 change of the variance in burnout, and all variables explained 33.6% of the vari-

Table 3. Result of the hierarchical multiple linear regression analysis on burnout

Variables	Model 1			Model 2			Model 3			Model 4		
	b	t	*P*	b	t	*P*	b	t	*P*	b	t	*P*
Age, yr	–0.065	–2.718	0.007	–0.110	–4.917	0.000	–0.109	–4.930	0.000	–0.113	–5.480	0.000
Educational level	–0.333	–1.531	0.126	–0.276	–1.370	0.171	–0.221	–1.108	0.268	–0.264	–1.422	0.155
Main job 1*	–0.289	–0.568	0.570	0.312	0.665	0.506	0.223	0.479	0.632	0.142	0.329	0.742
Main job 2†	0.449	1.315	0.189	0.739	2.342	0.019	0.660	2.110	0.035	0.653	2.249	0.025
Type of dental organization 1‡	0.721	1.238	0.216	0.584	1.092	0.275	0.608	1.149	0.251	0.209	0.423	0.672
Type of dental organization 2§	1.464	2.435	0.015	1.278	2.330	0.020	1.287	2.372	0.018	0.671	1.322	0.187
Emotional demand and regulation	-	-	-	–0.052	–0.841	0.401	–0.030	–0.487	0.627	–0.026	–0.457	0.648
Overload and conflict in customer service	-	-	-	0.227	2.749	0.006	0.254	3.108	0.002	0.233	3.068	0.002
Emotional disharmony and hurt	-	-	-	0.269	6.404	0.000	0.267	6.443	0.000	0.200	5.126	0.000
Organizational surveillance and monitoring	-	-	-	0.131	1.830	0.068	0.100	1.415	0.158	–0.001	–0.022	0.982
Lack of a supportive and protective system in the organization	-	-	-	0.110	2.850	0.004	0.094	2.462	0.014	0.114	3.212	0.001
Self-efficacy	-	-	-	-	-	-	–0.144	–4.126	0.000	–0.147	–4.548	0.000
Type A personality	-	-	-	-	-	-	-	-	-	0.591	10.627	0.000
Intercept		15.920			8.765			12.016			10.884	
F		5.156			17.239			17.579			27.479	
R^2		0.042			0.211			0.230			0.336	
Sig of R^2 change		0.000			0.000			0.000			0.000	

*Main job 1 (0: consultation/administration, 1: prevention/education); †Main job 2 (0: consultation/administration, 1: treatment support); ‡Type of dental organization 1 (0: general hospital [3rd], 1: dental clinic [primary]); §Type of dental organization 2 (0: general hospital [3rd], 1: dental hospital [2nd]).

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ance in burnout.

As a result, we found that 7 variables; age, type of dental organization, overload and conflict in customer service, emotional disharmony and hurt, and lack of a supportive, and protective system in the organization, were positively associated with burnout. However, the 2 sub factors of emotional labor, "emotional demanding and regulation" and "organizational surveillance and monitoring" were not associated with burnout. For the analysis of the relationship personality traits and burnout, we found that self-efficacy and type A personality were significantly related to burnout, which confirmed the additive effects of self-efficacy and type A personality on burnout. Based on the results of model 4, the relative contribution of all independent variables affecting burnout was assessed. The factors affecting burnout were listed as follows, in a descending order: type A personality (t = 10.627), age (t = –5.480), emotional disharmony and hurt (t = 5.126), self-efficacy (t = –4.548), lack of a supportive and protective system in the organization (t = 3.212), overload and conflict in customer service (t = 3.068), and type of dental organization (t = 2.249).

In addition, we analyzed the interaction effects of self-efficacy and type A personality on the relationship between the 5 sub factors of emotional labor and burnout. However, we could not find any interaction effects of "emotional labor × self-efficacy" and "emotional labor × type A personality" on burnout (data not shown).

DISCUSSION

Numerous changes such as increased global competition and the development of the service sector are affecting today's world of work (22). As a result of this transformation of work, people are increasingly exposed to mental work demands. Although more recent literature has shown that burnout can be found both within and outside human services (23), human service professionals are generally at a relatively high risk for burnout (24). Although most burnout research has focused on environmental correlates, it is likely that individual difference factors also play an important role in the development of burnout (5).

The present study was conducted to shed light on the relationship between emotional labor and burnout, and the effects of personal traits, such as self-efficacy and type A personality, on the relationship of the 5 sub factors of emotional labor with burnout. We expected that emotion regulation and suppression with consumers would deplete the resources of employees, which could lead to burnout. We found that emotional labor is positively associated with burnout. Of the 5 sub factors of emotional labor, 3 factors, namely overload and conflict in customer service, emotional disharmony and hurt, and lack of a supportive and protective system in the organization, were related to burnout. These results indicate that people who experience higher levels of overload and conflict, and emotional disharmony and hurt while performing customer service roles are more likely to exhibit higher levels of burnout. In addition, it is likely that insufficient support and protection from the organization toward the negative consequences of emotional labor (e.g., clients' violence) is associated with burnout. These results suggest that the burnout of dental hygienists might result from work overload, tension, conflict, and emotional hurt or damage (i.e., emotional dissonance) while performing customers service, which may occur owing to the interactions with their clients rather than the emotional demands or regulation involved in the emotional labor itself. These results might be an interesting finding, which is different from that reported by previous research.

The K-ELS was developed to assess the Korean specific characteristics of emotional labor, and it was categorized into 2 parts. The first part is to assess the intrinsic dimensions of emotional labor (i.e., "emotional demanding and regulation," "overload and conflict in customer service," and "emotional disharmony and hurt") in doing customer service or in interacting with the clients. The second part is on the extrinsic or structural dimensions of emotional labor (i.e., "organizational surveillance and monitoring" and "lack of a supportive and protective system in the organization"), and it aims to measure whether the organizations or companies monitor if the employees' activities are suitable to the organizational goals, and whether the protective or supportive systems in the organization help prevent and protect the various conflicts and tensions that are encountered by employees while providing customer service. Unfortunately, the second part has not been included in most of measurement tools for assessing emotional labor. As a result of the focus group interview to retrieve the questionnaire items in the present study, it was found that Korean workers suffered from the extrinsic dimensions of emotional labor as well as the intrinsic dimension of emotional labor. Finally, the extrinsic dimensions of emotional labor were included in the questionnaire. This may be a unique characteristic of "Korean" emotional labor, different from that of Western countries. Because every country has own organizational culture and norms, they require the specific display rules and emotion regulation to achieve their organizational goals. These might, in turn, be an important job stress for employees. In the present study, we found that the lack of a protective or supportive system in the organization was a significant predictor of burnout.

Emotional demand is more prevalent in the human service professions and in public service. Further, these jobs involve a constant demand for attention from people in managerial and supervisory positions. People who are constantly and intensively interacting with other people in emotionally suppressed situations are more likely to experience burnout. In a recent work by Lim et al. (25), sleep disturbance was found to occur owing to both emotional demands (i.e., engaging with complaining

customers and suppressing emotions at the workplace). The level of emotional demand, including engaging with complaining customers and suppressing emotions at the workplace is significantly associated with sleep disturbance among the Korean working population. The results of this study reveal that excessive emotional demands could be a risk factor for sleep disturbances. Another study revealed that high emotional demands in men and women, and low job control in men might play a crucial role in developing suicidal ideation among sales and service workers in Korea (26). This result suggests that the experience of high emotional demands is an important risk factor for suicidal ideation. In a nationwide cross-sectional study, suppressing emotion and engaging with complaining customers at work have been found related to the experience of depression and anxiety symptoms (27).

As expected, the present study revealed the positive relationship of the 3 sub factors of emotional labor and personal traits (type A personality) with burnout, and the negative relationship of self-efficacy with burnout. This view is being examined further as more researchers are revealing how workplace emotions as well as self-efficacy and personality help to explain employees' burnout. Personal traits provide directly affective, motivational, and cognitive support or resources (additive effect), and have been shown to have an indirect interaction effect against stressful situations and tensions (buffering effect). Given that emotional labor has been shown to increase stress and to drain cognitive and motivational resources, and that personal trait acts as a buffer against stress and provides similar resources, personality traits should decrease the negative outcomes of emotion regulation and management. In this study, we examined 2 indicators of personality traits as additive modifiers of emotional labor: self-efficacy and type A personality.

We proposed personal modifiers such as self-efficacy and type A personality against job burnout as a negative indicator of emotion regulation or management. We investigated each of these individually and in combination, as moderators of the relationship between emotional labor and burnout. Exposure to chronic job stress, with a low sense of efficacy to manage his/her job demands, and to enlist social support in the face of a difficult situation and environment increases the risk of burnout (28). Indeed, during the last 2 decades, several studies have reported the possibility that individual difference plays an important role in the development of burnout. Several systematic reviews and meta-analytical studies investigating determinants of burnout emphasized the role of other individual characteristics (29).

We found that a perceived sense of self-efficacy was inversely correlated with burnout; the lower the sense of self-efficacy, the higher the perceived burnout. While burnout represents a crucial and one of the most frequently studied outcomes of job stress (5), self-efficacy beliefs represent key modifiable cognitions that may protect workers from the negative outcomes of job stress (12). These protective factors may refer to the characteristics of the work environment (e.g., organizational structure and safety standards) or individual variables (e.g., self-efficacy, age, and optimism), which have established associations with burnout (29,30). Environmental characteristics or individual difference variables (such as organizational structures or age) are difficult to change. In contrast, cognitions such as self-efficacy are modifiable protective factors. For example, Soria et al. (31) found that self-efficacy could moderate work related stress, in the sense that low levels of self-efficacy are related to high levels of occupational stress. The result of this study supports the significant link between self-efficacy beliefs and burnout in dental hygienists, which means that self-efficacy as an important modifiable potentiality that may contribute to reducing the risk of burnout and increasing employees' job satisfaction and job involvement.

Finally, the effects of type A personality on the relationship between emotional labor and burnout were analyzed in this study. We found that it plays a significant role in developing burnout. Although previous literature indicates that stressful aspects of the work environment are more important predictors of burnout than personality is, it is important for researchers to consider individual differences (32). Certain individuals may be more capable of adapting to stressful conditions and of returning quickly to their original levels of well-being than others are. Several theoretical mechanisms potentially link type A personality to burnout (33-36). Alarcon et al. (30) explain the mechanisms in 2 ways. First, type A individuals are likely to perceive the work negatively, independent of the objective nature of one's job (33). Second, these individuals are likely to evoke negative responses from co-workers (34), to manipulate their jobs in ways that produce stressors (35), and may self-select jobs that are inherently stressful (36). Type A personality, job stressors, and coping responses were significantly and independently related to levels of psychological burnout (37). It has been found that type A personality has significant relationships with levels of psychological burnout (14).

Dental hygienists are caregivers who are performing customer service in the face of clients or patients, and they regulate and manage their emotions. The results of this study suggest that a stress management program for dental hygienists to reduce or alleviate the negative outcomes caused by emotional labor, at the organizational level, and coping strategies to reinforce the personal potentiality suitable to organizational norms and work settings, at the individual level, are necessary measures that need to be explored. It is also vital to enhance the personal capacities and beliefs, and to encourage a healthy personality through personality modification by trying to change type A to B personality traits.

There are some potential limitations to this study. First, the problem of selection bias in the sampling can be raised. There-

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fore, the obtained results may have limited generalizability, and may not be applicable to all types of emotional workers. In order to minimize this problem, we recruited the participants of this study using stratified sampling proportional to the number of dental hygienists in each type of dental organization in Korea. Second, in a cross-sectional study such as this, it is difficult to establish a causal relationship between the exposure and outcome variables. It is unclear whether people experiencing higher levels of emotional labor are more likely to report burnout or if people with higher job burnout will attribute their exposure to emotional labor. However, the plausibility of our finding is strengthened through statistical adjustment for multiple potential confounders at different levels. Our findings are also largely consistent with theoretical expectations and previous literature on closely related topics. Third, the "healthy worker effect" may apply in this study. It may be possible that most susceptible dental hygienists or those who suffer most from emotional work may change their job to avoid these conflicts and tensions. Fourth, some covariates, such as dominant influences of peer coworkers and exercise habits, were not included in the broad range of other potential confounders. Finally, work intensity and organizational climate as potential modifiers that may affect burnout were not estimated in this study. It is necessary to consider these variables in future research.

In conclusion, the results of this study indicate that performing excessive and prolonged emotional work that represents higher levels of overload and conflict in providing customer service, and experiencing emotional disharmony and hurt in performing customer service roles are more likely to increase burnout. Furthermore, at an organizational level, an insufficient supportive and protective system in the organization toward the negative consequences of emotional labor (e.g., clients' violence) is found to increase the risk of burnout. At the individual level, we found that the perceived sense of self-efficacy was inversely correlated with burnout: the lower the sense of self-efficacy, the higher the perceived burnout; and that type A personality had a significant relationship with levels of psychological burnout. In the future, it is necessary to develop manuals and guidelines for minimizing the negative effects of emotional labor, such as burnout and depression, and to pay attention to coping strategies to strengthen self-regulatory variables and an adaptive personality suitable to organizational norms, such as self-efficacy and type A personality to address the individual-level factors affecting burnout. It is also important to develop a protective and supportive management system at the organizational level. Furthermore, legislation for the prevention of negative outcomes caused by emotional labor and healthy consumerism are needed at the state level. The results of this study contribute to the understanding of how emotional labor and individual differences can affect burnout.

DISCLOSURE

The authors have no potential conflicts of interest to disclose.

AUTHOR CONTRIBUTION

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