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Abstract

Job Stress and Organizational Effectiveness of Dental Technicians

Nam Gyu Park¹⁾, Young Joon Seo²⁾, Nam Soo Park²⁾, Ki Nam Jin²⁾

*School of Administrative Science, Yonsei University¹⁾
Department of Health Administration, Yonsei University²⁾*

Objectives: To investigate the relationship between job stress and the variables associated with the organizational effectiveness of dental technicians.

Methods: The job stresses were divided into the following six components; somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, and hostility. The organizational effectiveness variables in this study included job satisfaction, occupational commitment, organizational commitment and intent to leave. The sample used in this study consisted of 248 dental technicians working in hospitals and dental laboratories. The data were collected with self-administered questionnaires between March 16 and April 29 in 2002, and the results analyzed with ANOVA and multiple regression analysis.

Results: Firstly, job stress of dental technicians was found to be significantly different in relation to the number of workers at the workplace and the working hours. The level of job stress was the highest when the number of workers were more than 10, or when the daily working hours were over 12. Secondly, of the six variables of job stress, five variables of somatization, interpersonal sensitivity, depression, anxiety, and hostility were found to have significant negative correlations with job satisfaction. Thirdly, all six job stress variables were found to have significant negative correlations with the occupational and organizational commitments of the dental technicians. Finally, depression was the only job stress variable found to have a significant effect on the dental technicians' intent to leave.

Conclusions: The results of this study indicate that personal and organizational efforts are very important to improve the organizational effectiveness in reducing work related stress. Organizational support, especially for managing the depression of dental technicians is recommended.

Key Words: Dental technician, Job stress, Organizational effectiveness

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가 가 ,

(job stress)

(, 1985, Yoshida et al, 1991; Hensten-Pettern & Jacobsen, 1993; , 1995; , 2000).

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(organizational

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가 (Jamal, 1990; Mathieu, 1990, 1991; Price, 2002; 1995, 2001, 2002).

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가 (job satisfaction:

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(intent to leave:

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(somatization),

(obsessive-compulsive),

(interpersonal sensitivity),

(depression), (anxiety),

(hostility) 6

Fig. 1

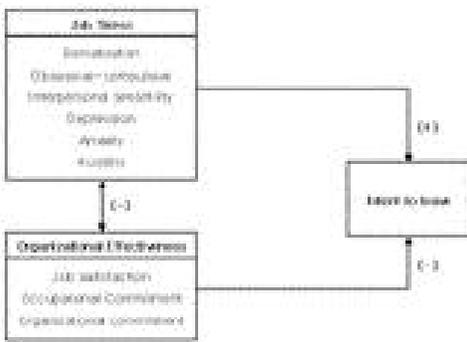


Fig. 1. Model of job stress and organizational effectiveness

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Figure 1

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(multicollinearity)

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Global Severity Index of Dental Technician (GSID)

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(Cronbach's) Table 1
.79

2)

4 (2001) 4. SPSS 10.0 for windows
5, 6, 22, 1), t-test (ANOVA)
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Table 1. Descriptive statistics and reliability of indices

	Variables	Items	Mean	S.D.	Range	Reliability()
Job Stress	Somatization	9	1.86	.74	0-4	.91
	Obsessive-Compulsive	10	2.29	.65	0-4	.90
	Interpersonal Sensitivity	7	1.46	.56	0-4	.79
	Depression	8	1.63	.68	0-4	.89
	Anxiety	8	1.62	.71	0-4	.90
	Hostility	8	1.38	.75	0-4	.92
Organizational Effectiveness	Job Satisfaction	5	2.30	.77	0-4	.88
	Occupational Commitment	6	2.10	.83	0-4	.82
	Organizational Commitment	5	2.24	.86	0-4	.88
	Intent to Leave	6	1.90	.71	0-4	.80

3) 가 (multiple regression analysis)

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1) 1.73(4)

1.

가 10 가 12

Table 2

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(Table 3).

191 (77.0%), 57 (23.0%), 25 35 (14.2%), 26~30 가 105 (42%), 31~35 가 62 (25.2%), 36 44 (17.9%), 145 (58.5%), 104 (41.5%), 232 (93.5%), () 16 (6.5%), 2 63 (25.4%), 3~5 72 (29.0%), 5~10 62 (25.0%), 10 51 (20.6%) 5 가 135 (54.4%) 가 159 (64.1%), 89 (35.9%) 가 218 (87.9%) 30 (12.1%) 1~3 16.1%, 4~6 35.5%, 7~9 25.8%, 10 22.6% 가 107 (43.3%) 가 55 (22.3%), 52 (21.1%), 33 (13.4%) 100~160 96 (38.9%) 가 160 86 (34.8%), 100 65 (26.3%) 10~12 93 (37.5%), 12 81 (32.7%), 10 74 (29.8%) (+) (-) 가 6 3 90 (36.3%), 1~2 81 (32.7%), 77 (31.0%) 가 2

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Table 2. General characteristics of study subjects

Characteristics	Categories	N	Percentage
Sex	Male	191	77.0
	Female	57	23.0
Age	25	35	14.2
	26 ~ 30	105	42.7
	31 ~ 35	62	25.2
	36	44	17.9
Marital Status	Single	145	58.5
	Married	103	41.5
Education	Junior College	232	93.5
	College	16	6.5
Career (Yrs)	2	63	25.4
	3 ~ 5	72	29.0
	5 ~ 10	62	25.0
	10	51	20.6
Region	Metropolitan Area	159	64.1
	Small City And Rural Area	89	35.9
Work Place	Commercial Laboratory	218	87.9
	Clinical Laboratory	30	12.1
Number Of Workers	1 ~ 3	40	16.1
	4 ~ 6	88	35.5
	7 ~ 9	64	25.8
	10	56	22.6
Position	Chief	33	13.4
	Deputy Chief	55	22.3
	Technician	107	43.3
	Assistant	52	21.1
Pay (Ten Thousand Won)	<100	65	26.3
	100 ~ 160	96	38.9
	160	86	34.8
Work Hours	10	74	29.8
	10 ~ 12	93	37.5
	12	81	32.7
Turnover Experience	0	77	31.0
	1 ~ 2	81	32.7
	3	90	36.3

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Table 3. Mean comparison of job stress by general characteristics of study subjects

Characteristics	Categories	Job Stress	F/t Value
Total		1.73	
Sex	Male	1.72	t= .003
	Female	1.77	
Age	25	1.83	F= 1.445
	26 ~ 30	1.71	
	31 ~ 35	1.63	
	36	1.84	
Marital Status	Single	1.76	F= .127
	Married	1.69	
Career (Yrs)	2	1.69	F= 1.047
	3 ~ 5	1.74	
	5 ~ 10	1.67	
	10	1.86	
Region	Metropolitan Area	1.74	t= 1.093
	Small City And Rural Area	1.72	
Work Place	Commercial Laboratory	1.75	t= 1.017
	Clinical Laboratory	1.58	
Number Of Workers	1 ~ 3	1.71	F= 3.522*
	4 ~ 6	1.63	
	7 ~ 9	1.69	
	10	1.96	
Position	Chief	1.82	F= 1.684
	Deputy Chief	1.74	
	Technician	1.78	
	Assistant	1.57	
Pay (Ten Thousand Won)	<100	1.74	F= 1.563
	100 ~ 160	1.64	
	160	1.81	
Work Hours	10	1.62	F= 6.285**
	10 ~ 12	1.66	
	12	1.92	
Turnover Experience	0	1.59	F= 2.474
	1 ~ 2	1.78	
	3	1.78	

*: p<0.05, **: p<0.01

Table 4. Results of pearson correlation analysis

Variables	r		
	Job Satisfaction	Occupational Commitment	Organizational Commitment
Job Stress (Total)	-.335**	-.320**	-.346**
Somatization	-.165*	-.259**	-.184**
Obsessive-Compulsive	-.122	-.167**	-.164*
Interpersonal Sensitivity	-.318**	-.295**	-.289**
Depression	-.448**	-.456**	-.397**
Anxiety	-.331**	-.287**	-.266**
Hostility	-.284**	-.312**	-.240**

* : p<0.05 , ** : p<0.01 (two tailed)

Table 5. Effects of job stress on the intent to leave (regression coefficients)

Variables	Regression Coefficients
Somatization	-.070
Obsessive-Compulsive	-.050
Interpersonal Sensitivity	.057
Depression	.281*
Anxiety	.119
Hostility	.026
F	5.516*
R ²	.114

* : p<0.05 (two tailed)

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