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Association between Teacher Efficacy and Job Burnout According to Job Stress Variables of Middle School Teachers

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Abstract

Objectives: This study is narrative research to identify the level of job stress, teach efficiency, and job burnout among middle school teachers in Gangwon-do province and to investigate the effects of job stress on teacher efficacy and job burnout.

Method: In total, samples were gained from 59 subjects who teach at middle schools in Y town in Gangwon-do province. Data was collected from April 2 to April 23, 2018.

Findings: Results showed that their job stress was significantly higher for shorter years of teaching experiences, homeroom teachers, single, and numerous classes. Although their job stress did not affect teacher efficacy, it served as a variable that gives 31.4% impacts on job burnout.

Improvements: Working environment needs to be improved through this study and follow-up research is needed to identify methods of decreasing result variables of job burnout when emotional variables such as job stress are mediated as teacher efficacy.

Keywords: *Teacher Efficacy, Job Burnout, Job Stress, Middle School Teachers, Gangwon-do*

Introduction

As 20.1% of Korean teachers who responded "I'm regretful to become teachers" among 105,000 middle school teachers, this record is 9.5% higher than the average of OCED members and 36.6% said "they would not become teacher again if they must choose this job" and it was higher than the OCED mean(22.4%). Causes such as difficulty of instructing students due to rapidly changing educational background, selfish attitudes of parents' lack of teaching understanding, social criticism on teachers, teaching subjects, and difficulty of performing official tasks were raised[1]. In addition, stress can cause burnout. It literally refers to lack of emotional and mental energy due to excessive contract with people and feeling fatigue and also encompasses losing interests in tasks and further losing vigor, confidence, and interests[2]. One study reported that teachers are fatigued by excessive interactions with students, parents, and colleagues in terms of their job characteristics.[3,4,5,6,7]

Job stress can affect teacher efficacy in terms of external and internal factors. The external factors affecting teacher efficacy include organizational characteristics, dynamic interactions among members, participation in decision-making, and relations with parents.[8] Internal factors include the level of academic education of teachers, teaching experience, and job satisfaction. Likewise, Teacher efficacy is closely associated with job stress. Based on earlier studies including a study that teacher efficacy increases as more communications with colleague teachers and frequent numbers of participating in decision-making[9] and another study on the negative association between job stress and teacher efficacy of elementary school teachers and kindergarten teachers[10,11], it can be said that teacher efficacy gets higher as job stress is reduced.

Accordingly, based on the above results from past research, job stress can cause job burnout and this can affect teacher efficacy. This study therefore aims to

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explore methods of preventing burnout and alleviation, and further provide basic data for establishing policy to boost educational efficiency by giving positive impacts on teacher efficacy.

Objective

This study intends to investigate the association between teacher efficacy and job burnout according to job stress of middle school teachers. Specific objectives are set as follows.

First, it aims to identify the correlation among job stress, teacher efficacy, and job burnout of subjects.

Second, it aims to identify the effects of job stress on teacher efficacy.

Third, it aims to identify the effects of job stress on job burnout.

Subject and Method

Subjects in this study are middle school teachers at Y town in Gangwon-do province. We collected 60 samples from them who consented to participate in this study after giving detailed accounts on this objective, the guarantee of anonymity, and the right of study participants. Data was collected from April 2 to April 23, 2018. In total, 59 questionnaires except for one were used for final analysis. Using G-Power 3.1.9.2 to see the fulfillment of the number of subject samples, test power was set to 0.95, the level of significant was set to 0.05, and the size of effect was set to 0.20. The number of minimum samples was met as the number of maximum samples were 27 needed for ANOVA, correlation, and regression analysis.

Instruments

Job Stress: A translated version by Ahn[12] from Teacher Stress scale invented by Fimian[13] was used for assessing job stress of teachers. The index consists of 29 questions including eight questions on time management, six questions on task-related concerns, five questions on professional concerns, six questions on discipline and motivation, and four questions on professional intervention. Each question is composed of five-point Likert scale ranging between 1 point "never" and 5 point "very." As score is higher, it means that stress is higher. From Ju[14], reliability was Cronbach'α=.92, while Cronbach'α=.85 was found in this study.

Teacher Efficacy: Teacher efficacy scale was developed by Gibson and Dembo[15], abbreviated by Tschannen[16], translated by Lim[17] into Korean, and used by Ju[14]. This scale consists of 21 questions ranging between 1 point "never" and 5 point "very." As score is higher, teacher efficacy gets higher. Ju[14] showed that reliability was Cronbach'α=.84. This study showed Cronbach'α=.96.

Job Burnout: Job burnout scale was adopted from MBI(Maslach Burnout Inventory) developed by Maslach & Jackson[18] and used by Ha[19]. It is composed of 22 questions ranging between 1 point "never" and 5 point "very". As score is higher, job burnout is higher. Reliability turned out Cronbach'α=.91 as shown in Ha[19]. This study showed Cronbach'α=.82.

Analysis Method: Data from this study was analyzed by using SPSS statistical program T-test and ANOVA were used to see the general characteristics, job stress, teacher efficacy, and job burnout of subjects and Scheffé post-test was also conducted. The correlation among job stress, teacher efficacy, and job burnout was identified by using Pearson's correlation coefficients. In addition, regression analysis was carried out to identify the effects of job stress on teacher efficacy and job burnout.

Results

The difference among Job Stress, Teacher Efficacy, and Job Burnout according to General Characteristics: Job stress according to general characteristics showed statistically significant difference in teaching experience (F=10.79, p=.000), position (t=-2.09, p=.040), homeroom teacher (t=-2.84, p=.006), single or married (t=-2.84, p=.006), and total number of classes (F=15.27, p=.000). Post-analysis on teaching experiences demonstrated that teachers who have little experience showed significantly higher job stress than those who have many teaching experiences. Job burnout according to general characteristics of subjects showed significant difference in position (t=-2.09, p=.040), while had no significant difference in teacher efficacy [Table 1].

Table 1: Differences among job stress, teacher efficacy, and job burnout according to general characteristics (N = 59)

Characteristics	Category	Job stress		Teacher efficacy		Job burnout	
		M ± SD	scheffé	M ± SD	scheffé	M ± SD	scheffé
Gender	Male	3.20 ± .47		2.91 ± 1.00		3.20 ± .38	
	Female	2.99 ± .69		2.78 ± 1.04		3.25 ± .68	
	t or F	1.12		.45		-.27	
	p	.265		.648		.783	
Teaching experience	Less than 10 years [a]	3.65 ± .74	a>b>c>d	2.96 ± .98		3.23 ± .72	
	11- 20 years[b]	3.05 ± .40		2.39 ± .48		3.41 ± .45	
	21- 30 years[c]	2.81 ± .41		2.79 ± 1.21		3.29 ± .69	
	More than 31 years[d]	2.65 ± .40		3.11 ± 1.15		2.99 ± .32	
	t or F	10.79***		1.12		1.06	
	p	.000		.348		.371	
Position	Deputy teacher	2.84 ± .57		2.94 ± 1.12		3.00 ± .52	
	Ordinary teacher	3.16 ± .65		2.76 ± .99		3.35 ± .61	
	t or F	-1.787		.624		-2.09*	
	p	.079		.535		.040	
Homeroom teacher	Yes	3.19 ± .65		2.77 ± 1.00		3.31 ± .60	
	No	2.79 ± .54		2.91 ± 1.10		3.10 ± .58	
	t or F	2.36*		-.48		1.28	
	p	.021		.627		.204	
Single or married	Married	2.89 ± .54		2.91 ± 1.00		3.22 ± .55	
	Single	3.36 ± .70		2.65 ± 1.07		3.27 ± .70	
	t or F	-2.84**		.92		-.26	
	p	.006		.357		.795	
Total number of classes	Less than 3 classes[a]	2.82 ± .37	d>c>b>a	2.69 ± 1.09		3.37 ± .54	
	4-6 classes[b]	2.74 ± .47		3.02 ± 1.16		3.06 ± .60	
	7-10 classes[c]	3.10 ± .27		2.79 ± 1.04		3.08 ± .52	
	More than 11 classes[d]	3.80 ± .64		2.75 ± .77		3.35 ± .70	
	t or F	15.27***		.35		1.18	
	p	.000		.788		.324	
*p<.05 **p<.01 ***p<.001							

Correlation among Job Stress, Teacher Efficacy, and Job Burnout of Subjects: Job stress of subjects showed a statistically significant and positive correlation with job burnout (r-.348, p<.01), while it was not correlated with teacher efficacy. In other words, the higher job stress is, the lower job burnout is. Teacher efficacy showed a statistically significant and positive correlation with job burnout (r=-.617, p<.01) [Table 2].

Table 2: Correlation among job stress, teacher efficacy, and job burnout of subjects (N = 59)

		Factors of job stress						G	H
		A	B	C	D	E	F		
Factors of job stress	A	1							
	B	.310*	1						
	C	.136	.143	1					
	D	.051	.180	.238	1				
	E	.120	-.025	.182	.271*	1			
	F	.748**	.646**	.413**	.535**	.378**	1		
G		.018	-.011	-.043	-.257*	-.307*	-.150	1	
H		.092	.003	.201	.491**	.473**	.348**	-.617**	1
*p<.05, **p<.01, ***p<.001		A. Time management, B. Task-related concerns, C. Professional concerns, D. Discipline and motivation, E. Professional intervention, F. Total job stress, G. Teacher efficacy, H. Job burnout							

Effect of Job Stress on Teacher Efficacy: As shown in Table 3, to test the effects of job stress on teacher efficacy, multiple regression analysis and multicollinearity test revealed that multicollinearity was not found, but significance probability was more than 0.5. This indicates that the regression line was inappropriate for the model. In other words, job stress of subjects did not significantly affect teacher efficacy.

Table 3: Effects of job stress on teacher efficacy

Predictors		B	β	t	Tolerance	VIF
Variables of job stress	Time management	.044	.057	.41	.880	1.137
	Task-related concerns	-.006	-.007	-.04	.859	1.165
	Professional concerns	.082	.046	.340	.909	1.100
	Discipline and motivation	-.194	-.196	-1.42	.861	1.162
	Professional intervention	-.265	-.269	-1.98	.889	1.125
R^2		.132				
Adj. R^2		.050				
F		1.61				
p		.172				
*p<.05, **p<.01, ***p<.001						

Effect of Job Stress of Subjects on Job Burnout: To test the effects of job stress of subjects on job burnout, multiple regression analysis and multicollinearity test found that as shown in Table 4, discipline and motivation (t=3.38, p<.01) and professional intervention (t=3.02, p<.01) as subfactors of job stress were positively associated. In other words, as discipline, motivation and professional interventions of subjects increase, so does job burnout. The regression model showed a higher correlation as R=.611 between job stress and job burnout. For 37.4% of total variations, job stress had a positive impacts on job stress (F=6.32, p<.001).

Table 4: Effects of job stress of subjects on job burnout (N = 59)

Predictors		B	β	t	Tolerance	VIF
Factors of job stress	Time management	.022	.049	.42	.880	1.137
	Task-related concerns	-.042	.060	-.69	.859	1.165
	Professional concerns	.050	.121	.41	.909	1.100
	Discipline and motivation	.230	.068	3.38**	.861	1.162
	Professional intervention	.202	.067	3.02**	.889	1.125
R^2		.374				
Adj. R^2		.314				
F		6.32***				
p		.000				
*p<.05, **p<.01, ***p<.001						

Discussion

This study aimed to identify the level of job stress, teach efficiency, and job burnout among middle school teachers in Gangwon-do province and to investigate the effects of job stress on teacher efficacy and job burnout. To perform this, a survey was conducted among 59 middle school teachers. The mean difference of variables was compared through t-test and the effects of job stress on teacher efficacy and job burnout was statistically processed by using regression analysis. Based on results from this study, discussion and conclusion associated with earlier studies are presented as follows.

Mean scores of their job stress turned out 3.06 point and job burnout showed 3.24 point, which were comparatively higher than mean score and this showed that job stress and job burnout account for major portions. Teacher efficacy recorded 2.82 point in average, which showed similar results. Job stress showed significant differences in teaching experience, position, homeroom teacher, single or married, and the number of classes. As teaching experience is low, job stress increased. This is consistent with results presented by Choi[20] that teachers who have little experience assume important tasks and feel stressful. Moreover, ordinary teachers who assume low positions show higher job burnout, which is consistent with results from Park's[21] study that higher teaching experiences correspond with increasing job satisfaction.

No effect of job stress of middle school teachers on teacher efficacy was found and Lim[17] supported that the effects of teacher efficacy on job stress is irrelevant. Job burnout was influenced by discipline and motivation as well as professional intervention as subfactors of job stress, which is consistently explained by results found in Lim[17].

Conclusion

Observing discussions in association with earlier studies and society, the disposition of parents or local demanders who force teachers to work perfectly can give negative impacts on their job stress. When positive measure is prepared to reduce their job stress and boost job satisfaction, it needs to focus on cutting performance-oriented evaluation and solving private problems.

Ethical Clearance: Not required

Source of Funding: Self

Conflict of Interest: Nil

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