

The Effect of Job Stress, Emotional Commitment, and Job Satisfaction on Child-care Center Teachers' Turnover Intention: The Moderated Mediation Effect of Grit

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Abstract

Because child-care teachers in Korea have heavy workloads and worse treatment than in other teaching positions, their job stress level and turnover rate are high. There is a need for research to alleviate the turnover rate of child-care teachers. Therefore, our purpose was to verify the roles of grit in the influences of job stress on turnover intention through emotional commitment and job satisfaction of Korean child-care teachers. We used SPSS Win. 25.0 and PROCESS macro for SPSS version 3.5 programs to carry out frequency analysis, reliability analysis, correlation analysis, and moderated mediation effect analysis.

First, as a result of correlation analysis, there was a statistically significant correlation between all variables. Second, the moderated mediating effect of grit on the double mediating effect of emotional commitment and job satisfaction in the link between job stress and turnover intention was verified. This results can be used as a basic model using grit to reduce child-care center teachers' turnover intention.

KEYWORDS: job stress, emotional commitment, grit, job satisfaction, turnover intention, moderated Mediation, PROCESS macro

Introduction

Job stress is a concept that considers stress experienced by humans in a job. Job stress has a negative effect on one's psychological and physical health. It is an important concept in organizational behavior and management, because it negatively affects organizational outcomes. In particular, the job stress of child-care center teachers negatively affects the infants, parents, and child-care centers in charge [1].

Job stress also affects job satisfaction [2], burnout [3], and organizational commitment [4], which is a major variable that affects [5] and therefore it merits receiving much attention.

Turnover intention is a major variable that has the most decisive influence on turnover [6]. In particular, when a child-care teacher's turnover intention increases, the sensitivity in

communication with infants and toddlers decreases [7]. Teachers who work at child-care centers with high turnover intention have lower morale, resulting in reduced job performance [8].

The reasons for this study are as follows.

First, it is obvious that job stress will promote turnover intention. However, research on how job stress affects turnover intention is insufficient. Therefore, we set emotional commitment and job satisfaction as mediators in the link between job stress and turnover intention, and the mechanism between job stress and turnover intention needs to be identified.

Second, previous studies were limited in that they dealt separately with the relationships between job stress, emotional commitment, grit, job satisfaction, and turnover intention. An alternative study is needed to comprehensively verify the relationships of the variables in a single model and, in particular, to examine the role of where, when, and how each variable works.

Therefore, this study will provide a new model for reducing child-care teachers' turnover intention by verifying the moderated mediating effect of grit on the link between job stress, emotional commitment, job satisfaction, and turnover intention.

To achieve this purpose, we set up the following research questions. First, what are the correlations between job stress, emotional commitment, grit, job satisfaction, and turnover intention? Second, does grit have a moderated mediation effect on the link between job stress, emotional commitment, job satisfaction, and turnover intention?

Theoretical Background

1. Relationship between job stress and turnover intention

Job stress breaks one's physical and psychological homeostasis, and is a negative result caused by excessive work, role conflict and ambiguity, poor working conditions, and threatening work environments [9]. In addition, job stress is a dysfunctional perception or emotion of a condition perceived in a job environment or event [10].

Job stress is an important factor in determining the success or failure of an organization, because it lowers job satisfaction and productivity, and negatively affects job integrity [11]. In particular, job stress is important, because it can be a cause of turnover intention [12,13].

Turnover intention is an organization member's decision to leave the organization and is the most important factor that directly affects turnover [14]. Moreover, child-care teachers with turnover intention tend to be less sensitive to the needs of infants and young children, and to reduce the quality of their interactions with infants [15]. This can negatively affect children's growth and development [16]. Not only that, turnover requires the time and cost of hiring a new employee [8].

When reviewing previous studies on turnover intention and job stress, we found studies showing that there is a positive and significant correlation between turnover intention and job stress [17,18], and that job stress affects turnover intention [12,13,16,19].

Based on the previous studies, this study attempts to identify the roles of related variables in the influence of job stress of child-care teachers' turnover intention.

2. Mediating effects of emotional commitment and job satisfaction

Emotional commitment means that members feel emotionally attached to the organization

and feel unity with it while working [20]. Emotional commitment is the most important dimension between the components of organizational commitment [21] and is a representative variable of organizational attitude. Meyer and Allen [21] identified the lower dimensions of organizational commitment as affective commitment, continuance commitment, and normative commitment. After the validity of measurements has been proven, it is used as the most representative in the field of organizational behavior [22].

In particular, emotional commitment is a desirable characteristic of the organizational members that a company wants [23], because it affects work performance [24] or work quality [25].

On the other hand, job satisfaction refers to a positive emotional state that members of an organization feel about their job or job experience [26]. If a child-care teacher is not satisfied with his or her job, that worsens the organization's overall performance and child-care services [27]. In addition, since the job satisfaction of child-care teachers affects the learning outcomes of infants and young children, it acts as a major factor in providing quality child-care services to infants [28].

In this study, we set emotional commitment and job satisfaction as mediators. Therefore, we reviewed the related studies. Emotional commitment mediated in the link between communication within the organization and turnover intention [29], between organizational fairness and voluntary turnover [30], and between authentic leadership and turnover intention [31]. Job satisfaction has a mediating effect in the relationship between job stress and turnover intention [11,32,33] and between job exclusivity and turnover intention [34,35].

As such, some studies have been accumulated to verify the mediating effects of emotional commitment and job satisfaction, but few studies have verified the serial mediating effects of the two. Therefore, in this study, we want to grasp the roles of emotional commitment and job satisfaction in the link between job stress and turnover intention.

3. The moderating effect of grit

Grit is a passion and perseverance for long-term goals [36]. People with ample grit set long-term goals and continue to strive and challenge themselves even if they encounter difficulties in the process of pursuing their goals [36].

Grit is a trait of people with outstanding achievements in various fields [36] and relieves stress, because it acts as a buffer against failure or difficult situations [37].

In a study of early childhood teachers, there was a significant difference in job satisfaction and turnover intention between the high-grit group and the low-grit group, and grit had increased job satisfaction, but reduced turnover intention [38].

Grit has been used as a moderating variable in recent studies. Grit moderated the association between employment anxiety and customer orientation of hotel employees [39], and constant persistence, a sub-variable of grit, had a moderating effect on the link between mother's overprotection and infant's performance function [40].

There is no research showing that grit played a moderating role in the link between emotional commitment and job satisfaction. However, there are reports that the grit of office workers is closely related to their longevity rate [41]. And the grit of elementary-school teachers is also closely related to the retention rate of the teaching profession [42]; the higher

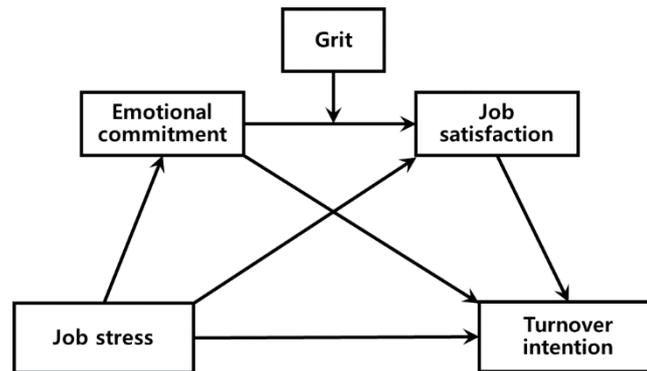
the grit of child-care teachers, the lower the turnover intention [43].

Therefore, we expect that the influence of job stress on turnover intention through emotional commitment and job satisfaction will be moderated by grit.

Methods

1. Research Model

The main analytical method we used is moderated mediating effect analysis, using model 91 of the PROCESS macro ver.3.5. The concept of our research model is shown in Figure 1.



[Figure 1] Conceptual Research Model

2. Research subjects and Data collection

The subjects of the survey were intentionally sampled using purposively sampling method. These were child-care center teachers in D city and S city in Chungcheongnam province in Korea. Child-care teachers in Korea must constantly have interpersonal relationships with infants with difficulty in communication, and with parents, directors, and colleagues. Because of heavy workloads and worse treatment than in other teaching positions, their job stress level and turnover rate are high. For this reason, we set a child-care teacher as the subject of the study.

We collected data using a questionnaire and conducted the survey for a month around October 2019. Before the survey, after explaining the purpose and method of this study to the subjects, the survey was conducted only with those who agreed to it. Of the collected data, a total of 234 copies were used for analysis, excluding unscrupulous responses, duplicate responses, and non-responses.

Of the survey subjects, 78.6% were married, 21.4% unmarried. In age, the 40s were the most at 49.1%, the 30s were 23.6%, 20s were 15.0%, and 50s and older 12.3%. In working experience, those with 5 years or less accounted for the most at 49.7%, followed by 37.1% with 6 to 10 years, 6.6% with 11 to 15 years, and 6.6% with more than 16 years.

3. Research Tools

3.1. Job stress

We measured job stress with a scale developed by Parker and DeCotiis [10] and used by Ahn [44]. This scale has 13 questions and uses a 5-point Likert scale. The higher the score, the

higher the job stress. In this study, Cronbach's α of the job stress was .877.

3.2. Emotional commitment

We measured emotional commitment with a scale developed by Meyer and Allen [45] and translated by Kim [46]. This scale has 7 items and uses a 5-point Likert scale. The higher the score, the higher the level of emotional commitment, and in this study, Cronbach's α was .817.

3.3. Job satisfaction

We measured job satisfaction selecting 5 of the items related to job satisfaction from the scale developed by Brayfield and Rothe [47]. This scale uses a 5-point Likert scale; the higher the score, the higher the satisfaction with the job. In this study, the job satisfaction reliability by Cronbach's α was .918.

3.4. Turnover intention

To measure turnover intention, we used a scale developed by Mobley [48] and used by Kang & Jyung [49]. This scale has 5 questions, using a 5-point Likert scale. The higher the score, the higher the turnover intention. In this study, reliability of the turnover intention by Cronbach's α was .877.

3.5. Grit

We measured the grit using the scale developed by Duckworth and Quinn [50] and used by Hwang and Lee [51]. This scale has 8 questions on a 5-point Likert scale. The higher the score, the higher the passionate interest and persistence. In this study, the grit reliability by Cronbach's α was .725.

4. Data Analysis

For data analysis, we did descriptive statistics analysis and reliability analysis using SPSS Win.25.0 and moderated mediating effect analysis using SPSS PROCESS macro 3.5.

Results

1. Correlation and Descriptive Statistics

We used Pearson's correlation analysis to find the correlations between all variables. The results are shown in Table 1. There was a statistically significant correlation between all variables. The correlation coefficient between emotional commitment and job satisfaction was the highest at .583 ($p < .01$), and the correlation coefficient between grit and turnover intention was the lowest at -.298 ($p < .01$).

The mean score of emotional commitment, job satisfaction, and grit exceeded the median value of 3 points. In particular, the mean score of emotional commitment was the highest, at 3.9413, and the mean score of the turnover intention was the lowest, at 2.2560.

Table 1. Correlation and Descriptive Statistics

	1.	2.	3.	4.	5.
1. Job stress	1				
2. Emotional commitment	-.357**	1			
3. Job satisfaction	-.390**	.583**	1		
4. Grit	-.417**	.371**	.451**	1	
5. Turnover intention	.506**	-.577**	-.528**	-.298**	1
M	2.3537	3.9413	3.7308	3.4985	2.2560
SD	.73074	.64213	.69857	.48612	.88672

** $p < .01$

2. Moderated mediating effect verification

In order to verify the moderated mediating effect of grit in the effects of job stress, emotional commitment, and job satisfaction on Korean child-care teachers' turnover intention, we analyzed using model 91 of the PROCESS macro for SPSS proposed by Hayes [52].

To verify the moderated mediating effect, before the analysis, the values of the emotional commitment and grit variables were average-centered, the number of bootstrapping samples was set at 5,000, and the confidence interval was set to 95%. The analysis results are shown in Figure 2 and Table 2.

First, in the mediating variable model, job stress had significant negative effects on emotional commitment ($-.3144, p < .001$) and on job satisfaction ($-.1253, p < .05$). Emotional commitment had a significant positive effect ($.5290, p < .001$) on job satisfaction. Grit also had a significant positive effect on job satisfaction ($.2863, p < .001$), and the interaction term between emotional commitment and grit had a significant positive effect on job satisfaction ($.2414, p < .05$). The increase in R^2 according to the interaction term was also significant ($\Delta R^2 = .0117, p < .05$), indicating that grit had a moderating effect. The conditional effect according to the grit value, the moderating variable, is significant when the grit value is at $M - 1$ SD, M , or $M + 1$ SD.

We used the Johnson-Neyman method, which is a floodlight method, to find out in which area the conditional effect according to the value of the moderating variable is significant. By identifying the significance area of the conditional effect of the interaction between emotional commitment and grit according to the grit value, we found that grit moderated emotional commitment and job satisfaction in the area where the grit value was greater than -1.1552 .

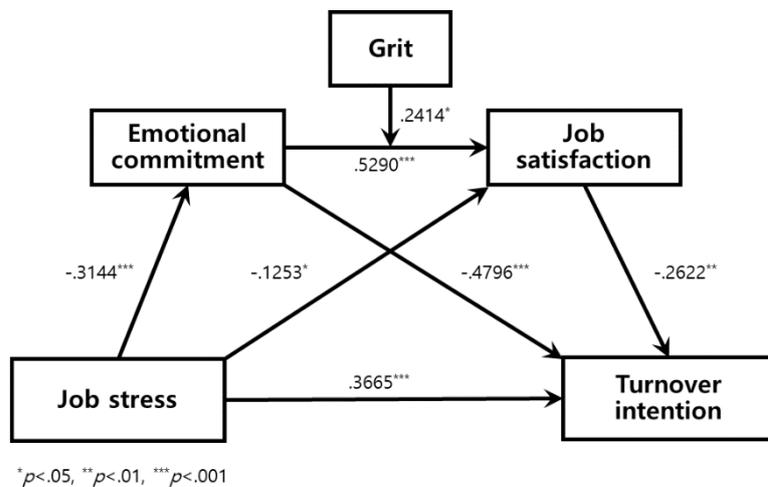
Second, in the model where turnover intention is the dependent variable, job stress significantly increased turnover intention ($.3665, p < .001$), and both emotional commitment ($-.4796, p < .001$) and job satisfaction ($-.2622, p < .01$) significantly decreased turnover intention.

Third, conditional and unconditional indirect effects were analyzed in the link between job stress and turnover intention. The path of job stress to turnover intention through

emotional commitment (.1508, .0809~.2319) was significant, because there was no 0 in the 95.0% confidence interval; so there was a mediating effect. The path from job stress to turnover intention via job satisfaction (.0329, .0009~.0776) also had a significant mediating effect, because 0 did not exist in the 95.0% confidence interval.

In the link between job stress and turnover intention, the conditional indirect effects (Job stress→Emotional commitment→Job satisfaction→Turnover intention) were significant when the value of grit, the moderating variable, was at M – 1 SD, M, or M + 1 SD.

Therefore, we verified that grit moderated the effect of job stress on turnover intention through emotional commitment and job satisfaction, which indicate the moderated mediating effect of grit.



[Fig. 2] Effect size for each path

<Table 2> Analysis of the moderated mediating effect of grit

Mediating variable model 1 (DV: Emotional commitment)						
Variables	coeffect	SE	t value	p	LLCI*	ULCI**
Constant	.7400	.1334	5.5493	.0000	.4773	1.0028
Job stress	-.3144	.0541	-5.8095	.0000	-.4210	-.2078
Mediating variable model 2 (DV: Job satisfaction)						
Variables	coeffect	SE	t value	p	LLCI*	ULCI**
Constant	3.9923	.1315	30.3515	.0000	3.7331	4.2515
Job stress	-.1253	.0536	-2.3361	.0204	-.2310	-.0196
Emotional commitment	.5290	.0619	8.5498	.0000	.4071	.6509
grit	.2863	.0830	3.4505	.0007	.1228	.4498
Emotional commitment×grit	.2414	.1113	2.1695	.0311	.0221	.4606
R ² increase with interaction						

Interaction item	ΔR^2	F	<i>p</i>
Emotional commitment×grit	.0117	4.7066	.0311

Conditional effects of the focal predictor at values of the moderator(s):

Grit	Effect	se	t	<i>p</i>	LLCI*	ULCI**
-.4871	.4114	.0706	5.8284	.0000	.2723	.5505
.0000	.5290	.0619	8.5498	.0000	.4071	.6509
.4871	.6466	.0925	6.9931	.0000	.4644	.8287

Conditional effect of focal predictor at values of the moderator:

Grit	Effect	se	t	<i>p</i>	LLCI*	ULCI**
-1.6980	.1191	.1825	.6528	.5146	-.2405	.4787
-1.5505	.1547	.1671	.9261	.3554	-.1745	.4839
-1.4030	.1903	.1519	1.2534	.2114	-.1089	.4896
-1.2555	.2259	.1369	1.6502	.1003	-.0438	.4957
-1.1552	.2502	.1270	1.9704	.0500	.0000	.5003
-1.1080	.2615	.1224	2.1376	.0336	.0204	.5026
			.			
			.			
			.			
1.2520	.8312	.1668	4.9839	.0000	.5026	1.1598

Dependent variable model
(DV: Turnover intention)

Variables	<i>coeffect</i>	SE	t value	<i>p</i>	LLCI*	ULCI**
Constant	2.3704	.3639	6.5138	.0000	1.6534	3.0875
Job stress	.3665	.0648	5.6537	.0000	.2387	.4942
Emotional commitment	-.4796	.0838	-5.7206	.0000	-.6448	-.3144
Job satisfaction	-.2622	.0787	-3.3310	.0010	-.4174	-.1071

Direct effect of Job stress on Turnover intention

Effect	se	t	<i>p</i>	LLCI*	ULCI**
.3665	.0648	5.6537	.0000	.2387	.4942

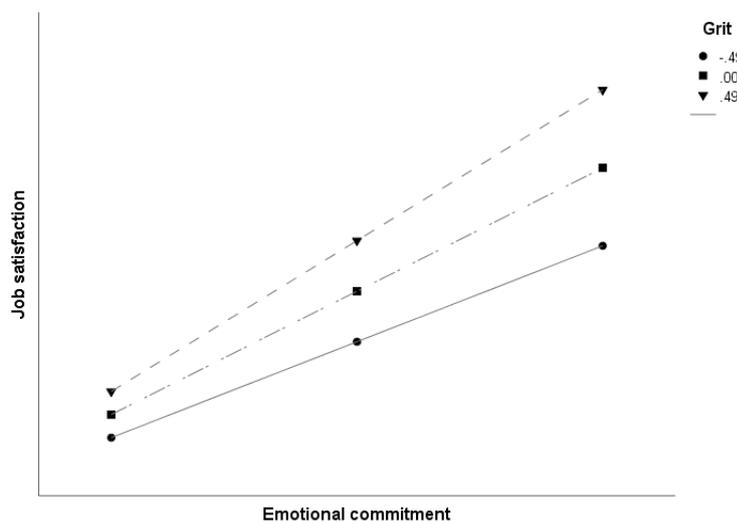
Conditional and unconditional indirect effects of Job stress on Turnover intention:

Path	Effect	BootSE	BootLLCI*	BootULCI**
Job stress →Emotional commitment→Turnover	.1508	.0391	.0809	.2319

intention					
Job stress →Job satisfaction→Turnover intention	.0329	.0197	.0009	.0776	
Job stress →Emotional commitment→Job satisfaction→ Turnover intention	Grit	Effect	BootSE	BootLLCI [*]	BootULCI ^{**}
	-.4871	.0339	.0153	.0085	.0673
	.0000	.0436	.0157	.0154	.0768
	.4871	.0533	.0188	.0191	.0933

*LLCI = The lower bound of the indirect effect within the 95% confidence interval

**ULCI = The upper bound of the indirect effect within the 95% confidence interval



< Figure 3> Moderating effect of grit

The moderating effect of grit was confirmed, and in the relationship between emotional commitment and job satisfaction, the result of dividing grit into a low group, a middle group, and a high group, and drawing the slope as a picture is shown in Figure 3.

The group with high grit showed a steeper slope of increase in job satisfaction when emotional commitment increased than did the group with low grit. In other words, even if the emotional commitment was high, the low-grit group had less job satisfaction than the high-grit group had; and even if the emotional commitment was low, the higher-grit group still showed higher job satisfaction than did the low-grit group.

Discussion and Conclusion

We conducted this study to grasp the moderated mediating effect of grit in the link between emotional commitment, job satisfaction, job stress, and turnover intention for Korean child-care teachers. The discussion and conclusions of the study are as follows.

First, there were significant correlations between job stress, emotional commitment, job

satisfaction, grit, and turnover intention. This is in the same vein as the results of studies showing that the higher the job stress, the higher the turnover intention [53], and that there was a correlation between job satisfaction and the turnover intention [54].

Second, by analyzing the moderated mediating effect, we found that grit moderated the relationship between job stress, emotional commitment, job satisfaction, and turnover intention. In other words, the moderated mediating effect of grit was verified in the relationship between job stress and turnover intention through emotional commitment and job satisfaction.

This result is supported by studies which show that job stress influences turnover intention through organizational commitment [55], that job stress affects emotional commitment [56], that emotional commitment affects job satisfaction [57], and that job satisfaction influences turnover intention [58,59].

In addition, our result is also in line with a study showing that the teacher's grit is closely related to the retention rate of the teaching profession [42], and that the higher the grit, the lower the turnover intention [43].

In other words, the job stress that child-care teachers experience in the education field not only lowers morale as a teacher, but also causes symptoms such as turnover intention [1]. However, a child-care teacher with high grit accepts this as a challenging situation even if the emotional commitment is lowered by job stress, does not have less enthusiasm for the teaching profession as the long-term goal to achieve as a teacher, and so has less turnover intention.

This study analyzed the moderated mediating effect of grit in the effects of child-care teacher's job stress, emotional commitment, and job satisfaction on turnover intention. This study is significant in that it is an empirical study incorporating previous studies that only partially investigated these variables.

In addition, the logical mechanism by which job stress lowers emotional commitment, which lowers job satisfaction, eventually leads to turnover intention. This study is more meaningful in that it has verified the effect of grit as an alternative to mediate the negative flow of job stress on turnover intention.

Nevertheless, suggestions for further research are as follows.

First, we found that job stress leads to turnover intention. Therefore, it is urgent to develop and apply effective programs that can reduce job stress, aside from research to find causal variables for turnover intention.

Second, we found that grit moderates the path of job stress to turnover intention through emotional commitment and job satisfaction. In-depth research on child-care teacher's grit should follow, and active research to explore other variables that can play an intervening role besides grit is also necessary.

REFERENCES

1. Schuler, R. S. (1980). Definition and conceptualization of stress in organizations. *Organizational Behavior and Human Performance*, 25(2), 184-215. [https://doi.org/10.1016/0030-5073\(80\)90063-X](https://doi.org/10.1016/0030-5073(80)90063-X)
2. Riggs, C. J., & Rantz, M. J. (2001). A model of staff support to improve retention in long-

- term care. *Nursing Administration Quarterly*, 25(2), 43-54.
3. Yoon, H. M., & Park, B. K. (2004). Factors associated with burnout of Korean child protective service workers. *Korean Journal of Social Welfare*, 56(3), 279-301. Retrieved from <http://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE07238552>
 4. Chu, C. I., Lee, M. S., & Hsu, H. M. (2006). The impact of social support and job stress on public health nurses' organizational citizenship behaviors in rural Taiwan. *Public Health Nursing*, 23(6), 496-505. <https://doi.org/10.1111/j.1525-1446.2006.00599.x>
 5. Kemery, E. R., Bedeian, A. G., Mossholder, K. W., & Touliatos, J. (1985). Outcomes of role stress: A multisample constructive replication. *Academy of Management Journal*, 28(2), 363-375. Retrieved from <https://doi.org/10.5465/256206>
 6. Steel, R. P., & Ovalle, N. K. (1984). A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. *Journal of Applied Psychology*, 69(4), 673-686. <https://doi.org/10.1037/0021-9010.69.4.673>
 7. Howes, C., Galinsky, E., Shinn, M., Gulcur, L., Clements, M., Sibley, A., ... & McCarthy, J. (1998). *The florida child care quality improvement study: 1996 report*. New York: Families and Work Institute.
 8. Whitebook, M., & Sakai, L. (2003). Turnover begets turnover: An examination of job and occupational instability among child care center staff. *Early Childhood Research Quarterly*, 18(3), 273-293. [https://doi.org/10.1016/S0885-2006\(03\)00040-1](https://doi.org/10.1016/S0885-2006(03)00040-1)
 9. Margolis, B. L., Kroes, W. H., & Quinn, R. P. (1974). Job stress: An unlisted occupational hazard. *Journal of Occupational and Environmental Medicine*, 16(10), 659-661.
 10. Parker, D. F., & DeCotiis, T. A. (1983). Organizational determinants of job stress. *Organizational Behavior and Human Performance*, 32(2), 160-177. [https://doi.org/10.1016/0030-5073\(83\)90145-9](https://doi.org/10.1016/0030-5073(83)90145-9)
 11. Lim, C. H. (2016). The relationship of police officers' job stress and turnover intention: Based on the mediating effect of job satisfaction. *The Korean Association of Police Science Review*, 18(3), 173-204. Retrieved from <http://www.riss.kr/link?id=A101965413>
 12. Yoon, H. M., & Noh, P. S. (2013). Relationship of work stress, career commitment, burnout, and turnover intention among educare-teachers. *Journal of the Korean Society of Child Welfare*, 1(43), 157-184. Retrieved from <http://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE07113785>
 13. Pyo, K. S., & Hwang, Y. Z. (2011). A study on the Influence of job stress on turnover intentions of child care teachers in small and medium-sized cities: Moderating effects of leadership of directors. *Korea Journal of Child Care and Education*, 66(1), 1-23. Retrieved from <http://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE01602466>
 14. Yoon, K. J., & Ji, K. B. (2011). Analysis of the turnover intentions of nursery teachers: Focusing on structural features and working conditions of seoul-type child care centers. *Korean Policy Sciences Review*, 15(2), 171-197. Retrieved from <http://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE01659984>
 15. Jeong, B. O. (2014). *A study on the professionalism, organizational commitment and turnover intention of child-care teachers*. Ajou University Graduate School of Education. Master's thesis. Retrieved from <http://www.riss.kr/link?id=T13548894>

16. Jeong, K. J. (2007). Effects of job stress and self-efficacy on job satisfaction and turnover intention among educare teachers, Chungbuk National University. Master's thesis. Retrieved from <http://www.riss.kr/link?id=T10855299>
17. Lee, S. M., & Pang, J. E. (2015). The mediating effect of ego-resilience on correlation between job stress and turnover intention. *Journal of Future Early Childhood Education*, 22(3), 83-104. Retrieved from <http://www.riss.kr/link?id=A100727472>
18. Yang, E. O., Choi, I. R., & Kim, S. M. (2017). The impact of sleep disorder and job stress on turnover intention of shift-working nurses. *The Korean Journal of Stress Research*, 25(4), 255-264. Retrieved from <http://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE07288825>
19. Lim, J. H. (2006). A study on the influence of job satisfaction and job stress on turnover intention of child-care teachers. University of Seoul. Master's thesis. Retrieved from <http://www.riss.kr/link?id=T10817735>
20. Mowday, R., Porter, L., & Steers, R. (1982). Organizational linkages: The psychology of commitment. *Journal of Vocational Behavior*, 14(4), 224-247.
21. Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1(1), 61-89. [https://doi.org/10.1016/1053-4822\(91\)90011-Z](https://doi.org/10.1016/1053-4822(91)90011-Z)
22. Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behavior*, 49(3), 252-276. <https://doi.org/10.1006/jvbe.1996.0043>
23. Hunt, S. D., Chonko, L. B., & Wood, V. R. (1985). Organizational commitment and marketing. *Journal of Marketing*, 49(1), 112-126. <https://doi.org/10.1177/002224298504900111>
24. Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61(1), 20-52. <https://doi.org/10.1006/jvbe.2001.1842>
25. Park, S. M., & Rainey, H. G. (2007). Antecedents, mediators, and consequences of affective, normative, and continuance commitment: Empirical tests of commitment effects in federal agencies. *Review of Public Personnel Administration*, 27(3), 197-226. <https://doi.org/10.1177/0734371X06296866>
26. Locke, E. A. (1976). The nature and causes of job satisfaction. *Handbook of Industrial and Organizational Psychology*. 36, 2004, pp. 23-44.
27. Cho, S. Y. (2004). Teacher's work satisfaction and work stress in child care center. *The Korea Association of Child and Education*, 36(1), 23-44. Retrieved from <http://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE00535775>
28. Byun, M. H. (2004). A meta-analysis of day care center teacher's job satisfactions. *Korea Journal of Child Care and Education*, 36(1), 95-117. Retrieved from <http://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE00535778>
29. Song, M. Y., Lee, J. H., & Park, J. H. (2019). How perceived communication satisfaction can affect turnover intention through affective commitment. *Journal of Digital Convergence*, 17(10), 149-158. Retrieved from

- <http://www.riss.kr.library.hanse.ac.kr:8000/link?id=A106405317>
30. Kim, J. S., & Ahn, K. Y. (2012). The relationship between organizational justice and voluntary turnover, and the mediating effect of affective organizational commitment. *Management Education Research*, 27, 331-352. Retrieved from <http://www.riss.kr.library.hanse.ac.kr:8000/link?id=A99551491>
 31. Lee, S. H., & Jeong, D. Y. (2020). The effect of authentic leadership on the turnover intention. *Management Research*, 35(1), 1-31. Retrieved from <http://scholar.dkyobobook.co.kr/searchDetail.laf?barcode=4010027588782>
 32. Lim, N. J., & Kim, A. N. (2014). Effects of early childhood teacher job stress on the turnover intention and job satisfaction. *Journal of Korea Industry-Academic Technology Society*, 15(8), 4972-4980. Retrieved from <http://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE07213622>
 33. Kim, M. J., & Ko, S. H. (2019). The effects of job stress of life managers for elderly living alone on turnover intention: Verification of mediating effect of job satisfaction and moderating effect of compensation. *The Journal of Welfare Counseling Education Research*, 8(2), 79-105. <https://doi.org/10.20497/jwce.2019.8.2.79>
 34. Park, S. S. (2016). The effects of job embeddedness on turnover intention for police officers: Focused on the mediating role of job satisfaction. *The Journal of Korean Police Research*, 15(4), 43-68. Retrieved from <http://www.earticle.net.ssl.library.hanse.ac.kr:8000/Article/A293561>
 35. Seo, H. M. (2018). The effect of job embeddedness on turnover intention of yoga instructors: Focused on the mediating effect of job satisfaction. *Korea Journal of Sport Studies*, 57(4), 207-221. <https://doi.org/10.23949/kjpe.2018.07.57.4.15>
 36. Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 92(6), 1087-1101. <https://doi.org/10.1037/0022-3514.92.6.1087>
 37. Salles, A., Cohen, G. L., & Mueller, C. M. (2014). The relationship between grit and resident well-being. *The American Journal of Surgery*, 207(2), 251-254. <https://doi.org/10.1016/j.amjsurg.2013.09.006>
 38. Kang H. M. & Park S. Y. (2018). Difference of job satisfaction and turnover intention according to grit duster type in early childhood teachers. *Journal of Learner-Centered Curriculum and Instruction*, 18(21), 787-806. <https://doi.org/10.22251/jlcci.2018.18.21.787>
 39. Kim, K. S., & Ko, S. S. (2018). The impact of job insecurity on customer orientation of hotel employees: The moderating effect of grit. *Journal of Tourism Studies*. 42(4), 49-67. <https://doi.org/10.17086/JTS.2018.42.4.49.67>
 40. Lee, J. Y., & Yu, J. I. (2019). The effects of maternal overprotection on young children's executive function: The moderating effects of grit. *Journal of Future Early Childhood Education*, 26(3), 23-42. <https://doi.org/10.22155/JFECE.26.3.23.42>
 41. Eskreis-Winkler, L., Duckworth, A. L., Shulman, E. P., & Beal, S. (2014). The grit effect: Predicting retention in the military, the workplace, school and marriage. *Frontiers in Psychology*, 5(36). <https://doi.org/10.3389/fpsyg.2014.00036>
 42. Robertson-Kraft, C., & Duckworth, A. L. (2014). True grit: Trait-level perseverance and

- passion for long-term goals predicts effectiveness and retention among novice teachers. *Teachers College Record* (1970), 116(3).
43. Kim, K. H. (2018). *Effects of grit and teaching efficacy on managing strategies for children's problem behaviors among child care teachers*. Chungbuk National University. Master's thesis. Retrieved from <http://www.riss.kr.library.hanse.ac.kr:8000/link?id=T14726418>
 44. An, J. S. (1999). *A study on the stress of service workers' emotional labor: Focusing on the hotel industry*. Gyeonggi University. Masters' Thesis. Retrieved from <http://www.riss.kr/link?id=T8872322>
 45. Meyer, J. P., & Allen, N. J. (1984). Testing the "side-bet theory" of organizational commitment: Some methodological considerations. *Journal of Applied Psychology*, 69(3), 372-378. <https://doi.org/10.1037/0021-9010.69.3.372>
 46. Kim, H. J. (2014). *The Influence of Affective commitment in Institutional Culture on Teacher Efficacy at Early Childhood Montessori Educational Institutions*. Catholic University of Daegu. Marster's thesis. Retrieved from <http://www.riss.kr/link?id=T13373584>
 47. Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology*, 35(5), 307-311. <https://doi.org/10.1037/h0055617>
 48. Mobley, W. H. (1982). *Employee turnover, causes, consequences, and control*. Addison-Wesley.
 49. Kang, I. J., & Jyung, C. Y. (2014). The Relationships among Turnover Intention, Career related Learning, Employability, Organizational Commitment and Career Commitment of Office Workers in Large Corporations. *Journal of Agricultural Education and Human Resource Development*, 47(2), 149-175. Retrieved from <http://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE06391029>
 50. Duckworth, A. L., & Quinn, P. D. (2009). Development and validation of the Short Grit Scale (GRIT-S). *Journal of Personality Assessment*, 91(2), 166-174. <https://doi.org/10.1080/00223890802634290>
 51. Hwang, Y. K., & Lee, C. S. (2020). Relationship between body image, growth mindset, grit, and successful aging in Korean elderly: Moderated mediation effect of hope. *Medico Legal Update*, 20(1), 2196-2202. <https://doi.org/10.37506/mlu.v20i1.707>
 52. Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.
 53. Park, I. S. (2019). *Relationship between job stress and stress responses perceived by child-care teachers*. Kongju National University. Master's thesis. Retrieved from <http://www.riss.kr.library.hanse.ac.kr:8000/link?id=T15341052>
 54. Lee, M. S. (2003). *Effect of duty satisfaction cause to the occupation change*. Kyung Hee University. Marster's thesis. Retrieved from <http://www.riss.kr.library.hanse.ac.kr:8000/link?id=T9583641>
 55. Hong, Y. S. (2017). Relationship between perceived job stress, organizational commitment and turnover intention among social welfare workers at Jeju province: Moderated mediation effect of social support from direct supervisor. *The Journal of Community Welfare*, 61, 53-80. <https://doi.org/10.15300/jcw.2017.61.2.53>

56. Sun, D. K., & Yeo, Y. S. (2019). The effect of job stress of IT industry employees' on job involvement and affective commitment. *The Journal of the Convergence on Culture Technology*, 5(3), 139-145. <https://doi.org/10.17703/JCCT.2019.5.3.139>
57. Lee, J. H. (2011). Social Welfare Organization's Group Culture on Organizational Citizenship Behavior(OCB) of Employees : Focusing on the Mediating Effect of Affective *Organizational Commitment & Job Satisfaction*. *Health and Social Welfare Review*, 31(4), 154-192.
58. Lee, B. R., & Lee, K. Y. (2012). The effect of the job satisfaction of early childhood teachers on the turnover intent. *Korea Journal of Child Care and Education*, 71, 53-72. Retrieved from <http://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE01887792>
59. Park, J. H., & Shin, N. R. (2013). Effects of job satisfaction and ego-resilience on turnover intention of child care teachers. *Journal of Parenting Policy Research*, 7(1), 88-105. Retrieved from <http://www.riss.kr/link?id=A100163718>