




Mindfulness in Teaching and Job Burnout: The Mediating Role of Self-Efficacy*

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ABSTRACT

Job burnout is a problem characterized by physical and mental problems caused by intense working conditions. In recent years, many teachers on a global scale have stated that they have experienced job burnout. It is known that many teachers who experience job burnout report sleep, fatigue, desire to quit work, low level of professional satisfaction and wellbeing. Although it is known that there are negative relationships between mindfulness, self-efficacy in classroom management, and job burnout, no research has been encountered to examine these concepts in the context of education. This study examined the mediating role of classroom management self-efficacy in the relationship between classroom mindfulness and teacher burnout. The research sample consists of 288 teachers, 185 women (64.2%) and 103 men (35.8%). In the preliminary analysis, for detecting multicollinearity Harmon's Single Factor Test and for normality Skewness and Kurtosis were tested. The goodness of fit values of the tested model was found as $\chi^2 / df=1.17$, CFI=.99, TLI=.99, GFI=.99 and RMSEA=.03. Since the path between mindfulness and job burnout in teaching is significant in the model, it is understood that self-efficacy in classroom management is a partial mediator in the relationship between mindfulness in teaching and job burnout. Mindfulness in the teaching profession is believed to play a key role in both self-efficacy in classroom management and burnout in the profession. For this reason, mindfulness in the classroom should be included in both in-service teacher training and professional development

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1. Introduction

Job burnout is characterized by an exhausting emotion, attitude, and behavior resulting from the experience of long-term stress. Burnout occurs primarily in professions that require face-to-face relationships, such as nursing and teaching (Capri & Kan, 2006; Chiron et al., 2010;). Such psychological pressures create various negative reactions among teachers, while dissatisfaction results in sleep problems and turnover (Lian et al., 2014; Roeser et al., 2013). The characteristics of teacher burnout have been associated with the welfare of teachers and poor quality teaching practices (Butler & Shibaz, 2015). Thus, teacher burnout may not only affect teachers; it also affects students. Given the impact of teacher burnout on teacher and student wellbeing, it is critical to have a better understanding of teacher burnout. Recently, various studies on mindfulness as a potential treatment for job burnout have been performed (Cohen-Katz et al., 2005; Krasner et al., 2009). Mindfulness is characterized as giving all attention to the present time knowingly and non-judgmentally (Kabat-Zinn, 1994). Mindfulness requires the purpose to participate thoroughly in the current experience without judgment (Kabat-Zinn, 1990). The idea of mindfulness is rooted in Buddhist values by focusing on changing thinking habits from distracted to aware (Reid, 2009). It has been related to attention and positive affective states like empathy and other prosocial emotions (Lutz et al., 2004). Also, research shows that

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mindfulness has the potential to buffer job burnout, but to date few studies have documented this relationship specifically among educators (Roeser et al., 2013). In his study, Rickert (2016) measured teacher mindfulness using self-reports, student reports, and third-party reports of calmness, clarity, and kindness and suggested that teacher mindfulness focuses on three basic behaviors: (a) mindful teachers should be calm and stable, and their emotional precautions should be high in the face of classroom difficulties, (b) mindful teaching should involve perspective taking and empathy in teacher-student interactions, and (c) mindful teachers should focus on the class, be in the moment, and be clear about their expectations for students. Frank, Jennings and Greenberg (2016) study addresses teacher mindfulness at the intrapersonal and interpersonal level. During teaching, the teacher's intrapersonal mindfulness refers to the teacher's attention and awareness, while interpersonal mindfulness indicates an open and accepting attitude towards student behavior. Researchers found a negative relationship between teacher mindfulness and teacher burnout (2016). Various researchers also emphasize that the protective effect of the teaching environment, including mindfulness, may be especially important in mitigating teacher burnout (Hultell et al., 2013; Jennings & Greenberg, 2009; Soenens et al., 2012; Steinhardt et al., 2010). The first hypothesis of the research was created based on the aforementioned research findings.

Hypothesis 1: Mindfulness in teaching is directly related to teacher burnout.

Studies on dispositional mindfulness of teachers have shown that teachers with higher mindfulness are emotionally supportive, gentle and proactive in their interactions with students (Floman, 2018; Jennings, 2014). Various studies reveal that mindfulness-based programs conducted with teachers have a positive effect on teachers' classroom management skills and self-efficacy feelings (Frank et al., 2016; Jennings et al. 2013; Jennings, 2015). Self-efficacy is based on the theoretical framework of social cognitive theory that emphasizes the development and use of the human institution, where people have some influence on what they do (Bandura, 2006). According to Bandura, whether certain behaviors are initiated, how much effort is made, and how long efforts last in the face of obstacles and preventive experiences is determined more by one's expectations of personal ability rather than skill level (Bandura, 1977). Teacher self-efficacy is defined as a teacher's judgment of their ability to demonstrate or motivate the student's participation and learning outcomes, even among students with difficulties (Tschannen-Moran & Woolfolk-Hoy 2001). Since mindfulness is related to awareness of the present moment and the ability to maintain attention, it is important to understand how teachers can adapt these psychological functions to their daily work in the school context with non-judgmental attitudes towards themselves and others. Teachers who can effectively transfer these abilities to the teaching environment are expected to have a high self-efficacy in classroom management. Based on this information, the second hypothesis of the research was created.

H2: Mindfulness in teaching is directly related to self-efficacy in classroom management.

Leiter (1993) defined burnout as a "self-efficacy crisis". It is suggested that teachers' self-efficacy has an important role in teacher burnout (Parker et al., 2012). In particular, positive beliefs represent the central resource that guides teachers' perceptions of stressors and their strategies to manage them. High self-efficacy has a buffering effect on burnout (Schwarzer & Hallum, 2008). Self-efficacy should be evaluated via a field-specific approach instead of a general criterion (Bandura, 1997). Self-efficacy in classroom management is defined as "teachers' beliefs about their ability to organize and carry out courses of action necessary to maintain order in the classroom" (Brouwers & Tomic, 2000) and represents another part of teachers' self-efficacy (O'Neill & Stephenson, 2011). This area plays an important role in the development of teacher stress and burnout (Friedman & Farber, 1992; Schwarzer & Greenglass, 1999; Schwarzer & Hallum, 2008). The third hypothesis of the research was created in the light of the literature regarding teacher self-efficacy and burnout.

H3: Self-efficacy in classroom management is directly related to job burnout.

Skaalvik and Skaalvik (2016) argue that the most effective source of teacher self-efficacy is previous mastery experiences that have been successful or failed in activities similar to the current activity. Considering the effects of teacher self-efficacy both at the teacher and student level, it is very important to identify and understand the sources of the "mastery experiences" mentioned. As explained by Frank et al. (2016), self-regulating abilities (being in the moment, focus, acceptance) for mindfulness are self-regulating behaviors that allow teachers to be more aware of events going on throughout the classroom and pay attention to students' needs and behavior without distracting others. Therefore, mindfulness in teaching could be related to previous

experiences that constitute a resource for self-efficacy in classroom management. This idea led to the final hypothesis of this research.

H₄: Mindfulness in teaching indirectly relates to burnout through self-efficacy in classroom management.

In addition, when examining the literature on teacher burnout, it was found that the variable of gender could be effective. While some studies revealed that female teachers reported more job burnout (Purvanova & Muros, 2010; Yorulmaz & Altinkurt, 2018), some studies did not find a significant difference between genders (Akin, 2018; Salami, 2011). Therefore, in this study examining the roles of mindfulness in teaching and self-efficacy in teacher burnout, gender was assigned as the control variable.

2. Methodology

2.1. Research Model

Structural equation modeling has been used for testing the proposed model, which is testing the mediating role of self-efficacy in classroom management in the relationship between mindfulness in teaching and job burnout. Structural equation modeling is a statistical approach used to test the relationships in the causal theoretical bases (Sümer, 2000). In this study, the proposed model was tested using observed variables.

2.2. Participants

The study sample consisted of 288 participants, of which 185 were women (64.2%) and 103 (35.8%) were men. Examining the distribution based on the education level studied showed that the sample consisted of 47 kindergarten (%16.3), 66 primary school (%22.9), 97 secondary school (%33.7) and 78 high school (%27.1) teachers. The average age was 41.02, the lowest age was 22 and the highest age was 56. The average length of professional experience was 16.45 years, the minimum 1 year and the maximum 36 years.

2.3. Measures

The Maslach burnout inventory-educator form (MBI-EF): This inventory developed by Maslach and Jackson (1981) was adapted by Maslach, Jackson and Leiter (2010). Ince and Sahin (2015) performed Turkish form of the inventory. The original form of the inventory consisted of 22 items and 3 dimensions in a 7-point Likert type. As a result of a study conducted with 760 classroom teachers, the validity and reliability studies of the inventory showed that the Turkish form of the inventory preserved the original structure. The Cronbach Alpha coefficient was 0.88 for Emotional Exhaustion, 0.78 for Depersonalization, and 0.74 for the Personal Accomplishment dimension. It is understood from the item-total correlations that the items in the inventory have a good discrimination. The confirmatory factor analysis applied for construct validity was found to be $CMIN/df = 4.3$, $CFI = .94$, $NFI = .93$ and $RMSEA = .07$. The current study's Cronbach Alpha was .90 for the inventory.

The teacher interpersonal self-efficacy scale (TISE): This scale was developed by Brouwers and Tomic (2002). The scale is based on teachers' interpersonal self-efficacy activity in three areas and consists of three sub-dimensions. These sub-dimensions include beliefs in "perceived self-efficacy regarding classroom management" (fourteen items), "perceived self-efficacy regarding support from colleagues" (five items) and "perceived self-efficacy regarding support from administrators" (five items). Capri and Kan (2006) conducted the Turkish adaptation study of the scale. The Cronbach Alpha was .93 for the total scale and .91, .91, .89 for the sub-scales, respectively. The test-retest reliability coefficient for the entire scale was found to be .80. The reliability coefficient of the scale in this study is .89.

Mindfulness in teaching scale (MTS): The scale was developed in order to measure teachers' mindfulness during the teaching processes (Frank et al., 2016). The Cronbach's Alpha internal consistency coefficient was found to be .64 for the Interpersonal Mindfulness Subscale, .80 for the Intrapersonal Subscale and .78 for the entire scale (Aslan-Gordesli et al., 2018) This study found the internal consistency coefficient of the scale to be .77. The goodness of fit values of the Turkish form acceptable level.

2.4. Procedure

To determine the suitability of the study to the research ethics, an application was made to the Istanbul Medipol University Institute of Social Sciences Ethics Committee. After obtaining ethical approval for the study, a total of 322 surveys were collected voluntarily. The analysis excluded 34 data sets that were outside

of the normal distribution. The data obtained from the remaining 288 teachers were analyzed in accordance with the purpose and hypotheses of the research using the AMOS 22 program. Harmon’s Single Factor Test was used for testing multicollinearity. According to this tests result, items of the scales which are used in this study, were explaining result, items of the scales used in this study explained the 25.5% of the total variance. So, there was no multicollienarity detected.

2.5. Ethical

In this study, all rules stated to be followed within the scope of “Higher Education Institutions Scientific Research and Publication Ethics Directive” were followed. Ethical Review Board Name: İstanbul Medipol University Ethics Committee. Date of Ethics Evaluation Decision: 14.12.2020 Ethics Assessment Document Issue Number: 61

3. Results

This section will examine the Pearson correlation coefficient between variables (Table 1) to understand whether the job burnout, which is the dependent variable of the research, differs by gender and the tested structural models.

Table 1. Correlation Coefficients and Descriptive Statistics of Variables

Variable	Pearson Correlation				Descriptive Statistics			
	1	2	3	4	Mean	SD	Skewness	Kurtosis
Job Burn Out	1	.38**	.50**	.35**	45.03	1.53	.34	-.19
Self-efficacy		1	.32**	.29**	77.97	8.11	-.58	.02
Intrapersonal Mindfulness			1	.28**	39.10	4.81	-1.20	1.62
Interpersonal Mindfulness				1	17.19	1.91	-.45	.01

Note. ** p < .001, N = 288.

In Table 1, the skewness coefficients of the variables were between -1.20 and .34; the Kurtosis Coefficients ranged from -.19 to 1.62. Stevens (2002) states that the normal distribution of skewness and Kurtosis Coefficients is between ± 2. This result indicates that the variables in the study were normally distributed.. A Pearson Correlation Analysis conducted to examine the relationships between variables showed that the level of relationship between Job Burnout and Self-efficacy (r = -.38), Teacher Interpersonal Mindfulness (r = -.50), and Teacher Intrapersonal Mindfulness (r = -.35) were statistically significant, at p <.001 level. In addition, it was found that job burnout scores vary by gender. Accordingly, the job burnout levels of female teachers were significantly higher than the job burnout levels of male teachers (t = 2.52, df = 286, p <.05).

Goodness of fit values of the proposed model were found as $\chi^2/df = 1.17$, CFI= .99, TLI= .99, GFI= .99 and RMSEA= .03. According to the criterion ranges of Bentler (1990) and Kline (2011), the tested model is acceptable. The tested model and standardized estimates between variables is shown in Figure 1.

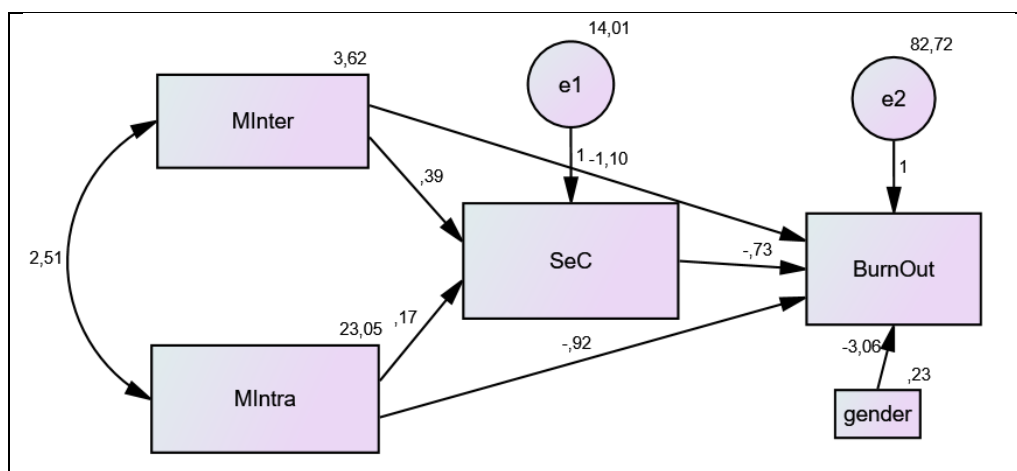


Figure 1. The Tested Model and Standardized Estimates Between Variables.

After observing that the tested model fit well, bootstrapping was carried out. When the bootstrapping findings were examined, it was seen that self-efficacy partial mediating role in the relationship between mindfulness

in teaching and teacher burnout. And also direct effects between the variables were significant. The effects of teacher interpersonal and intrapersonal mindfulness on self-efficacy were found to be significant, as well as how teacher intrapersonal mindfulness and teacher interpersonal mindfulness indirectly affected burnout (bootstrap coefficient = .02, 95% C.I. = -.10, -.02).

4. Discussion, Conclusion, and Recommendations

This study examined the mediating role of teaching mindfulness in the relationship between self-efficacy and job burnout. In the model, burnout was found to vary by gender when used as a control variable. This indicates that women report more burnout than men. In the literature, gender differences are generally explained by the gender role theory (Eagly & Wood, 2013). According to this theory, women and men develop gender roles within the framework of social characteristics and values (such as women developing feminine roles and men developing masculine roles). Consequently, male-dominated professions will emphasize activity, aggression and rationality, whereas female-dominated professions will be perceived as passive, emotional and nurturing (Gutek et al., 1991). In this context, gender also differentiates individuals' reactions to challenging processes such as stress (Gonzales-Morales et al., 2010).

Regarding burnout literature, it is possible to see gender differences in the dimensions of burnout. For example, while women experienced more emotional burnout, men reported higher personal accomplishment scores than females (Leon-Rubio et al., 2013; Purvanova & Muros, 2010). In some studies, it was observed that women scored higher than men in all dimensions of burnout (Nimehchisalem & Mousavy, 2014). Therefore, this finding of the study appears to be partially supported in the literature.

Another finding of the research is that the teacher's intrapersonal and interpersonal mindfulness is directly related to self-efficacy in classroom management. Mindfulness is known to influence teachers' self-efficacy, wellbeing, emotion regulation, and relationships with students (Jennings & DeMauro, 2017; Roeser et al., 2013). Frank et al. (2016) reported that teachers' interpersonal mindfulness was related to teachers' socioemotional self-efficacy and behavior management self-efficacy, whereas the same relationships were not found for teachers' intrapersonal mindfulness. Intrapersonal mindfulness may have a more important role in the success of teaching tasks requiring a high degree of attention and frequent switching (eg monitoring group behavior, managing concurrent teaching groups). Thus, it was stated that teachers' interpersonal and intrapersonal mindfulness could play an important role in self-efficacy perception. Still, this hypothesis could not be supported by the study of Frank et al. (2016).

Regarding the role of mindfulness in teacher self-efficacy, the difference between Frank's and her colleagues' study (2016) and this study in this report may stem from measurement tools. The heuristic differences between studies may also be related to the sample studied. Therefore, to discuss the connection between mindfulness in teaching and self-efficacy in classroom management more clearly, it is thought that it would be more appropriate to start by examining the items measuring mindfulness in teaching.

Teachers' intrapersonal mindfulness focuses on present moment awareness with statements such as "When I am teaching, it seems like I am walking 'automatically' without being aware of what I am doing" and "When I am in the classroom, I have difficulty focusing on what is happening in the present." On the other hand, teacher interpersonal mindfulness indicates acceptance of teacher-student interactions, such as "Even when I am uncomfortable, I allow my students to express their feelings" and "I listen carefully to my students' ideas even when I disagree with them" (Frank et al. 2016). Self-efficacy in classroom management is defined as "teachers' beliefs in their ability to organize and carry out the actions necessary to maintain classroom order" (Brouwers & Tomic, 2000, p. 242). According to Bandura, belief in self-efficacy is fed by past performances (Bandura, 1997, 1986). In other words, if the teacher realizes a problem occurred in the classroom in the past and successfully solves it, their perception of self-efficacy in classroom management will increase. Teachers who focus their attention on 'here and now' during their teaching activities and continue interactions with students in an acceptable manner are likely to recognize the problems and resources that arise in the classroom and succeed as a result. Those teachers continue to strive for solutions until the problem is resolved. Teachers with high levels of mindfulness in teaching will be able to solve problems in the classroom, and their sense of self-efficacy will increase. From this point of view, it can be assumed that mindfulness in teaching can predict self-efficacy in classroom management. Another finding of the study is that self-efficacy predicts job burnout in classroom management. The result of the study is consistent with other findings in the literature (Aloe et al.,

2014; Brown, 2012; Parker et al. 2012). Leiter (1993) defined burnout as a "self-efficacy crisis." For Bandura (1977), expectations of one's activity (self-efficacy perceptions) rather than one's abilities can determine whether certain behaviors are initiated, how much effort is expended, and how long efforts can be sustained in the face of obstacles and preventive experiences. If a decrease in self-efficacy occurs, people with high self-efficacy will recover faster than those with low self-efficacy (Schwarzer & Hallum, 2008). Therefore, teachers with high self-efficacy in classroom management will make more efforts towards maintaining this effort and experience less job burnout in the face of problems that may be encountered in the classroom compared to teachers with low self-efficacy.

The study found that teachers' self-efficacy perceptions showed a partial mediating role in the relationship between mindfulness in teaching and teacher burnout. This finding reveals that mindfulness in teaching is directly related to burnout and indirectly related to self-efficacy in classroom management. When the direct effects of mindfulness on job burnout in education were examined, it was seen that the standardized path coefficients (β) of teacher intrapersonal and interpersonal mindfulness were $-.38$ and $-.18$, respectively. In reviewing previous studies of mindfulness in teachers and job burnout, mindfulness was also found to be associated with job burnout (Jennings et al., 2013; Roeser et al., 2013). Marzano and Marzano (2015) reported that mindfulness is "quite obviously associated with control of the inner world" (p. 51). Therefore, teachers with high levels of intrapersonal mindfulness are more likely to engage in effective classroom management, and the level of job burnout of the teacher who engages in classroom management decreases. The role of teacher interpersonal mindfulness should also be mentioned alongside the role of teacher intrapersonal mindfulness in teacher self-efficacy and job burnout. As mentioned earlier, teacher interpersonal mindfulness is a construct related to an accepting approach to teacher-student interactions. A teacher who shows an effort to understand and accept students' behaviors and the underlying reasons for such behaviors will positively affect their interactions with students. Thus, it is thought that the students will not be indifferent to the teachers' acceptance-based attitude. Teachers who define teacher-student interaction as close and conflict-free are known to report higher job commitment and lower burnout (Klassen et al., 2012; Milatz et al., 2015). It has been found that the relationship between student misbehavior and teacher wellbeing is mediated by the teacher-student relationship (Aldrup et al., 2018). Therefore, considering that teacher interpersonal mindfulness will bring about an acceptance-based teacher-student interaction, it will be easier for the teacher to manage the classroom and report less burnout.

This study investigated the mediating role of self-efficacy in classroom management in the relationship between mindfulness in teaching and teacher burnout. Mindfulness has attracted interest in the scientific world in recent years, and numerous studies have been conducted on the positive effects of dispositional mindfulness on mental health (Allan et al., 2015; Bajaj & Pande, 2016; Bränström et al., 2011) and its protective role in psychological difficulties (Ando et al., 2011; Chiesa & Serretti, A, 2011). However, there are few studies on the extent of mindfulness and how mindfulness skills are reflected in the teaching environment. It is hoped that the study will be useful for future research. The study also has several limitations. The study sample was limited to teachers working in kindergarten, primary school, secondary school, and high school. It is thought that it would be beneficial to include various educator groups such as university instructors and special education teachers in future studies. Another limitation of the study is that the research results are limited to the qualities measured by the measurement tools used. For this reason, it is possible that similar studies using different measurement tools will make a valuable contribution to the field.

In the study, the fact that mindfulness in teaching is related to teacher burnout both directly and indirectly through self-efficacy in classroom management offers a new perspective for teacher education and teacher training. Mindfulness in teaching plays a key role in reducing teacher burnout, which is a major global problem. Therefore, it is thought that it is important to prepare mindfulness training in teaching, include these training in teacher training programs, and include existing teachers in in-service training. This study revealed that mindfulness in teaching has a negative relationship with teacher burnout and has a positive relationship with classroom management self-efficacy. The study sheds light on studies aimed at preventing burnout and increasing self-efficacy. It is hoped that it will contribute to the literature on the function of mindfulness in the context of education.

5. References

- Akin, M. A. (2018). The pre-service teachers' value orientations. *Educational Research and Reviews*, Vol. 13(6), pp. 173-187. <https://doi.org/10.29329/epasr.2018.150.3>
- Aldrup, K., Klusmann, U., Lüdtke, O., Göllner, R., & Trautwein, U. (2018). Student misbehavior and teacher wellbeing: Testing the mediating role of the teacher-student relationship. *Learning Instr.* 58, 126–136. <https://doi.org/10.1016/j.learninstruc.2018.05.006>
- Allan, B. A., Bott, E. M., & Suh, H. (2015). Connecting mindfulness and meaning in life: Exploring the role of authenticity. *Mindfulness*, 6(5), 996–1003. <https://doi.org/10.1007/s12671-014-0341-z>
- Aloe, A. M., Amo, L. C., & Shanahan, M. E. (2014). Classroom management self efficacy and burnout: A multivariate meta-analysis. *Educational Psychology Review*, 26, 101-126. <https://doi.org/10.1007/s10648-013-9244>
- Ando, M., Natsume, T., Kukihara, H., Shibata, H., & Ito, S. (2011). Efficacy of mindfulness-based meditation therapy on the sense of coherence and mental health of nurses. *Health*, 3(02), 118. <https://doi.org/10.4236/health.2011.32022>
- Aslan-Gordesli, M., Arslan, R., Cekici, F., Aydın-Sunbul, Z., Malkoc, A. (2019). The psychometric properties of the Mindfulness in Teaching Scale in a Turkish sample. *Universal Journal of Educational Research*, 7, 381–386. <https://doi.org/10.13189/ujer.2019.070210>
- Avanzi, L., Miglioretti, M., Velasco, V., Balducci, C., Vecchio, L., Fraccaroli, F., & Skaalvik, E. M. (2013). Cross-validation of the Norwegian teacher's self-efficacy scale (NTSES). *Teaching and Teacher Education*, 31, 69-78. <http://dx.doi.org/10.1016/j.tate.2013.01.002>
- Bajaj, B., & Pande, N. (2016). Mediating role of resilience in the impact of mindfulness on life satisfaction and affect as indices of subjective wellbeing. *Personality and Individual Differences*, 93, 63–67. <https://doi.org/10.1016/j.paid.2015.09.005>
- Bandura, A. (1977). Self-efficacy-toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215. <http://dx.doi.org/10.1037/0033-295X.84.2.191>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman.
- Bandura, A. (2006). Adolescent development from an agentic perspective. In F. Pajares, & T. Urdan (Eds.), *Self-Efficacy Beliefs of Adolescents* (pp. 1-43). Greenwich, Connecticut: Information Age Publishing.
- Bentler, M. (1990). Comparative fit indices in structural models. *Psychological Bulletin*, 107, 238-246. <https://doi.org/10.1037/0033-2909.107.2.238>
- Bränström, R., Duncan, L. G., & Moskowitz, J. T. (2011). The association between dispositional mindfulness, psychological wellbeing, and perceived health in a Swedish population-based sample. *British Journal of Health Psychology*, 16(2), 300–316. <https://doi.org/10.1348/135910710X501683>
- Brouwers, A. & Tomic, W. (2002). The factorial validity of scores on the teacher interpersonal self-efficacy scale. *Educational and Psychological Measurement*, 61 (3), 433-445. <https://doi.org/10.1177/00131640121971301>
- Brown, C. (2012). A systematic review of the relationship between self-efficacy and burnout in teachers. *Educational and Child Psychology*, 29(4), 47–63. doi:[10.1080/08865710802111972](https://doi.org/10.1080/08865710802111972).
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological wellbeing. *Journal of Personality and Social Psychology*, 84, 822-848. DOI: [10.1037/0022-3514.84.4.822](https://doi.org/10.1037/0022-3514.84.4.822)
- Butler, R., & Shibaz, L. (2015). Achievement goals for teaching as predictors of students' perceptions of instructional practices and students' help seeking and cheating. *Learning and Instruction*, 18, 453-467. <https://doi.org/10.1016/j.learninstruc.2008.06.004>
- Capri, B. & Kan, A. (2006). Öğretmen kisilerarası oz-yeterlik ölçeginin Turkce formunun gecerlik ve guvenirlik calismasi. *Mersin Universitesi Egitim Fakultesi Dergisi*, 2(1), 48-61.

- Carson, R. L., Baumgartner, J. J., Matthews, R. A., & Tsouloupas, C. N. (2010). Emotional exhaustion, absenteeism, and turnover intentions in childcare teachers examining the impact of physical activity behaviors. *Journal of Health Psychology*, 15(6), 905–914. <https://doi.org/10.1177/1359105309360697>
- Chiron, B., Michinov, E., Olivier-Chiron, E., Laffon, M., & Rusch, E. (2010). Job satisfaction, life satisfaction and burnout in French anaesthetists. *Journal of Health Psychology*, 15(6), 948-958. Doi: [10.1177/1359105309360072](https://doi.org/10.1177/1359105309360072).
- Chiesa, A., & Serretti, A. (2011). Mindfulness based cognitive therapy for psychiatric disorders: A systematic review and meta-analysis. *Psychiatry Research*, 187(3), 441–453. <https://doi.org/10.1016/j.psychres.2010.08.011>
- Cohen-Katz, J., Wiley, S. D., Capuano, T., Baker D. M., & Shapiro, S. L. (2005). The effects of mindfulness-based stress reduction on nurse stress and burnout, part II. *Holistic Nurse Practice*, 19(1), 26–35. doi:[10.1097/00004650-200501000-00008](https://doi.org/10.1097/00004650-200501000-00008)
- Collie, R. J., Shapka, J. D., & Perry, N. E. (2012). School climate and social-emotional learning: Predicting teacher stress, job satisfaction, and teaching efficacy. *Journal of Educational Psychology*, 104, 1189-1204. doi: [10.1037/a0029356](https://doi.org/10.1037/a0029356).
- Eagly, A. H., & Wood, W. (2013). Social role theory. In P. van Lange, A. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories in social psychology* (pp. 458–476). Thousand Oaks, CA: Sage.
- Fernet, C., Guay, F., Sen'ecal, C., Austin, S. (2012). Predicting intraindividual changes in teacher burnout: the role of perceived school environment and motivational factors. *Teaching and Teacher Education*, 28 (4):514-525. <https://doi.org/10.1016/j.tate.2011.11.013>
- Floman, J. L. (2018). *The effects of mindfulness and kindness meditation on teacher emotional abilities, compassion, and prosocial behavior* (PhD Thesis). University of British Columbia.
- Frank, J. L., Jennings, P. A., & Greenberg, M. T. (2016). Validation of the mindfulness in teaching scale. *Mindfulness*, 7(1), 155-163. doi: 10.1007/s12671-015-0461-0
- Friedman, I. A., & Farber, B. A. (1992). Professional self-concept as a predictor of teacher burnout. *Journal of Educational Research*, 86, 28–35. <https://doi.org/10.1080/00220671.1992.9941824>
- Gilbert, R. B., Adesope, O. O., & Schroeder, N. L. (2014). Efficacy beliefs, job satisfaction, stress and their influence on the occupational commitment of English-medium content teachers in the Dominican Republic. *Educational Psychology*, 34, 876–899. doi:[10.1080/01443410.2013.814193](https://doi.org/10.1080/01443410.2013.814193).
- Gonzales-Morales, M. G., Rodríguez, I., & Peiró, J. M. (2010). A longitudinal study of coping and gender in a female-dominated occupation: predicting teachers' burnout. *Journal of Occupational Health Psychology*, 15(1), 29-44. <https://doi.org/10.1037/a0018232>.
- Gutek, B. A., Searle, S., & Klepa, L. (1991). Rational versus gender role explanations for work– family conflict. *Journal of Applied Psychology*, 76, 560–568.
- Hultell, D., Merlin, B. & Gustavsson, J.P. (2013). Getting personal with teacher burnout: A longitudinal study on the development of burnout using a person-based approach. *Teaching and Teacher Education*, 32, 75–86. <https://doi.org/10.1016/j.tate.2013.01.007>
- Ince, N. B., & Sahin, A. E. (2015). The adaptation study of Maslach Burnout Inventory-Educators Survey to Turkish. *Journal of Measurement and Evaluation in Education and Psychology*, 6(2), 385–399.
- Jennings, P.A. (2014). Early childhood teachers' wellbeing, mindfulness, and self compassion in relation to classroom quality and attitudes towards challenging students. *Mindfulness*, 6, 732-743. <https://doi.org/10.1007/s12671-014-0312-4>
- Jennings, P. A., & DeMauro, A. A. (2017). Individual-level interventions: Mindfulness-based approaches to reducing stress and improving performance among teachers. In T. M. McIntyre, S. E. McIntyre, & D. J. Francis (Eds.), *Educator stress: An occupational health perspective* (pp. 319–346). Springer.

- Jennings, P.A., Frank, J.L., Snowberg, K.E., Coccia, M.A., & Greenberg, M.T. (2013). Improving classroom learning environments by cultivating awareness and resilience in education (CARE): Results of a randomized controlled trial. *School Psychology Quarterly*, 28, 374-390. <https://doi.org/10.1037/spq0000035>
- Jennings, P.A. & Greenberg, M.T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to child and classroom outcomes. *Review of Educational Research*, 79, 491-525. <https://doi.org/10.3102/0034654308325693>
- Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of your mind and body to face stress, pain, and illness*. Delacorte.
- Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life*. Hyperion.
- Klassen, R. M., Perry, N. E., & Frenzel, A. C. (2012). Teachers' relatedness with students: An underemphasized component of teachers' basic psychological needs. *Journal of Educational Psychology*, 104, 150-165. doi: [10.1037/a0026253](https://doi.org/10.1037/a0026253).
- Kline, B. R. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York: Guilford Press.
- Krasner, M. S., Epstein, R. M., Beckman, H., Suchman, A. L., Chapman, B., Mooney, C. J., & Quill, T. E. (2009). Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *Journal of the American Medical Association* 302: 1284-93. doi:[10.1001/jama.2009.1384](https://doi.org/10.1001/jama.2009.1384)
- Leiter, M. P. (1993). Burnout as a developmental process: Consideration of models. In Schaufeli, W. B., Maslach, C. E., & Marek, T. E. (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 237-249). Taylor & Francis.
- León-Rubio, J. M., León-Pérez, J. M., y Cantero, F. J. (2013). Prevalencia y factores predictivos del burnout en docentes de la enseñanza pública: El papel del género. *Ansiedad y Estrés*, 19, 11-25.
- Lian, P., Sun, Y., Ji, Z., Li, H., & Peng, J. (2014). Moving away from exhaustion: How core self-evaluations influence academic burnout. *PLoS One*, 9(1), 87-102. <https://doi.org/10.1371/journal.pone.0087152>
- Lutz, A., Greischar, L. L., Rawlings, N. B., Ricard, M., & Davidson, R. J. (2004). Long-term meditators self-induced high-amplitude gamma synchrony during mental practice. *Proceedings of the National Academy of Sciences, USA*, 101, 16369-16373. <https://doi.org/10.1073/pnas.0407401101>
- Marzano, R. J., & Marzano, J. S. (2015). *Managing the inner world of teaching*. Marzano Research.
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, 2(2), 99-113. <https://doi.org/10.1002/job.4030020205>
- Maslach, C., Jackson, S. E., & Leiter, M. P. (2010). *Maslach Burnout Inventory manual*. (3rd ed.). mindgarden.com.
- Maslach, C., Schaufeli, W. B. & Leiter, M. P. (2001). Job burnout, *Annual Review of Psychology*, 52, pp. 397-422. <https://doi.org/10.1146/annurev.psych.52.1.397>
- Milatz, A., Lüftenegger, M. & Schober, B. (2015). Teachers' relationship closeness with students as a resource for teacher wellbeing: a response surface analytical approach. *Frontier in Psychology*, 6, 1-16. doi: [10.3389/fpsyg.2015.01949](https://doi.org/10.3389/fpsyg.2015.01949)
- Nimehchisalem, V. & Mousavy, S. (2014). Contribution of gender, marital status, and age to English language teachers' burnout. *Advanced Language Literacy Studies*. 5(6), 39-47.
- O'Neill, S. C. & Stephenson, J. (2011.) The measurement of classroom management self-efficacy: a review of measurement instrument development and influences, *Educational Psychology*, 31:3, 261-299, DOI: 10.1080/01443410.2010.545344
- Parker, P. D., Martin, A. J., Colmar, S., & Liem, G. A. (2012). Teachers' workplace wellbeing: Exploring a process model of goal orientation, coping behavior, engagement, and burnout. *Teaching and Teacher Education*, 28, 503-513. <https://doi.org/10.1016/j.tate.2012.01.001>

- Purvanova, R. K., & Muros, J. P. (2010). Gender differences in burnout: A meta-analysis. *Journal of Vocational Behavior*, 77, 168–185. doi: [10.1016/j.jvb.2010.04.006](https://doi.org/10.1016/j.jvb.2010.04.006)
- Rajendran, N., Watt, H. M., & Richardson, P. W. (2020). Teacher burnout and turnover intent. *The Australian Educational Researcher*, 1–24. <https://doi.org/10.1007/s13384-019-00371-x>
- Reid, E. G. (2009). *A mindfulness workbook for young children: a classroom feasibility trial* [Doctoral dissertation]. Columbia University.
- Rickert, N. P. (2016). *Teacher mindfulness in the middle school classroom: Reliability and validity of a new scale* [Doctoral dissertation]. Portland State University.
- Roeser, R. W., Schonert-Reichl, K. A., Jha, A., Cullen, M., Wallace, L., & Wilensky, R. (2013). Mindfulness training and reductions in teacher stress and burnout: Results from two randomized, waitlist-control field trials. *Journal of Educational Psychology*, 105(3), 787. <https://doi.org/10.1037/a0032093>
- Salami, S. O. (2011). Job stress and burnout among lecturers: Personality and social support as moderator. *Asian Social Science*, 7(5), 110–121. <https://doi.org/10.5539/ass.v7n5p110>
- Schwarzer, R., & Hallum, S. (2008). Perceived teacher self-efficacy as a predictor of job stress and burnout: Mediation analyses. *Applied Psychology*, 57, 152–171. <https://doi.org/10.1111/j.1464-0597.2008.00359.x>
- Skaalvik, E. M., Skaalvik, S. (2016). Teacher stress and teacher self-efficacy as predictors of engagement, emotional exhaustion, and motivation to leave the teaching profession. *Creative Education*, 7, 1785-1799, [10.4236/ce.2016.713182](https://doi.org/10.4236/ce.2016.713182)
- Soenens, B., Sierens, E., Vansteenkiste, M., Dochy, F. & Goosens, L. (2012). Psychologically controlling teaching: Examining outcomes, antecedents, and mediators. *Journal of Educational Psychology*, 104, 108–120. <https://doi.org/10.1080/10615800701217878>
- Steinhardt, M. A., Smith-Jaggars S. E., Faulk, K. E. & Gloria, C. T. (2010). Chronic work stress and depressive symptoms: Assessing the mediating role of teacher burnout. *Stress and Health*, 27, 420–429. <https://doi.org/10.1002/smi.1394>
- Stevens, J. P. (2002). *Applied multivariate statistics for the social sciences* (4th ed.). Lawrence Erlbaum Publish.
- Sumer, N. (2000). Yapısal eşitlik modelleri: Temel kavramlar ve örnek uygulamalar. *Türk Psikoloji Yazıları*, 3 (6) 49-74.
- Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805. [http://dx.doi.org/10.1016/S0742-051X\(01\)00036-1](http://dx.doi.org/10.1016/S0742-051X(01)00036-1)
- Yorulmaz, Y. I., Altinkurt, Y. (2018)ç The examination of teacher burnout in Turkey: A meta-analysis, *Turkish Journal of Education (TURJE)*, 7(1), 34-54. DOI: [10.19128/turje.348273](https://doi.org/10.19128/turje.348273)