Examining the association between burnout and temperament and character traits of preschool teachers

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Abstract

The aim is to investigate the relationships between the temperament and character traits and burnout dimensions among preschool teachers. In total, 130 preschool teachers participated in this study. All participants were asked to complete the Temperament and Character Inventory, and the Maslach Burnout Inventory. Findings indicate a positive association between emotional exhaustion and persistence. On the other hand, there is a negative significant correlation between emotional exhaustion and self-directedness (SD). Results conclude that there is a positive significant relationship between depersonalisation and SD, and a positive association between personal accomplishment and harm avoidance (HA). Multiple regression analysis was employed to examine the predictive effect temperament and character traits displayed on the burnout dimensions. Novelty seeking and reward dependence were significant predictors of the emotional exhaustion burnout dimension. Temperament and character traits are not significantly correlated with depersonalisation. HA temperament and character trait are the predictor factors that have specific effects on personal accomplishment.

Keywords: Burnout, preschool education teachers, temperament and character traits.

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1. Introduction

Parents have more influence than other individuals on children during their first years of life. Following the family, we confront preschool education institutions as institutions that support the family in preparing the child for social life (Kandir, 2001). A preschool teacher is the most important part of preschool education, and is one of the most important adults in the lives of children (Griggs, Gagnon, Huelsman, Kiddler-Ashley & Ballard, 2009).

Studies conducted in different cultures show that teachers have the highest levels of professional job stress (Stoeber & Rennert, 2008). While teaching is reported to be a highly stressful profession in general, special studies regarding preschool education have put forth that teachers working with smaller children face an increasing amount of unprecedented problems (McCarthy, Lambert, O'Donnell & Melendres, 2009). Having to deal with a lot of matters and situations like following the latest innovations in his or her field and applying them, working in harmony with his or her colleagues and administrative staff, the struggle of establishing balance between family and school as well as excessively crowded classrooms may lead to stress in preschool teachers (Chan, 2003; Coulter & Abney, 2009; Lambert & McCarty, 2006; Mullins, 1993; Ozbey, 2012). Stress emerging in the workplace results in burnout over time. Burnout is regarded as a serious problem among teachers. It is observed that many teachers suffer burnout, and that their job satisfaction is decreased (Cano-Garcia, Padilla-Munoz & Carrasco-Ortiz, 2005; Friedman, 2000; Hakanen, Bakker & Schaufeli, 2006).

Burnout is defined as a psychological syndrome with three components, manifested as the individuals themselves feeling emotionally exhausted, behaving insensitively to the people they confront in the course of doing their job, and a decrease in their personal accomplishment emotions (Jackson, Schwab & Schuler, 1986; Maslach, 1982; Maslach & Jackson, 1981). The emotional exhaustion dimension of burnout is related to physical and emotional troubles, and is expressed in a decrease in an individual's emotional resources (Miller, 2011; Pienaar & Willemse, 2008). Depersonalisation, in teacher burnout, refers to negative, impersonal and cynical attitudes and feelings about one's students or colleagues. Personal accomplishment is accessed through a person's negative self-evaluation in relation to his or her job performance (Schaufeli, Maslach & Marek, 1993).

Burnout syndrome in teachers has drawn attention as a problem against which measures should be taken, considering its influence on both the personal and business life of the teacher (Aluya, Blanch & Garcia, 2005; Grayson & Alvarez, 2008; Jennings & Greenberg, 2009; Spilt, Koomen & Thijs, 2011; Wilson, 2002; Yoon, 2002). Studies have shown that teacher characteristics, working conditions and school climate, as well as student characteristics, are all associated with teacher burnout (Borman & Dowling, 2008; Guarino, Santibanez & Daley, 2006). Among individual variables, several demographic variables (such as age, gender and marital status), personality structure, coping strategies or perceived self-sufficiency have been examined (Boles, Dean, Ricks, Short & Wang, 2000; Burisch, 2002; Dorman, 2003; Griffith, Pennington, Wehner & Rogers, 1999; McElfatrick et al., 2000; van Dick & Wagner, 2001; Yoleri & Bostanci, 2012; Zellars, Perrewe & Hochwarter, 2000). Cordes, Dougherty and Blum (1997) also categorised three groups of factors that dominate a person prior to burnout: job and role characteristics, organisational characteristics and character and temperament characteristics.

While some of the individuals working under identical conditions suffer burnout, others suffer burnout less or do not suffer it at all (Lee, Song, Cho, Lee & Daly, 2003). Sensitivity and hardiness to the factors causing burnout vary according to personality structures. Personality features have an important effect on the degree to which a person suffers burnout. Cloninger has developed a general psychobiological theory to define the structure and development of personality (Cloninger, 1987; Cloninger, Svrakic & Przybeck, 1993). This theory comprises four dimensions of temperament which are assumed to be genetically independent from each other, moderately stable throughout life and unchanging against socio-cultural factors (novelty seeking (NS), harm avoidance (HA), reward dependence (RD) and persistence (P)), and three dimensions of character which are assumed to mature in adulthood, and to affect personal and social effectiveness with learning insight about the

concepts of self (self directedness (SD), Cooperativeness (C) and Self-Transcendence (ST)). Temperament represents the partly fixed individual differences in the processes of emotion, behaviour and attention (Rothbart, 1989), which are of biological-origin. Cloninger (1987) has expressed temperament as individual differences in the automatic responses given to an emotional stimulus. Character is acquired later, whereas temperament is substantially innate. From this aspect, character can change much easier than temperament (Zangwill, 1990). In contrast to temperament, character features describe the maturing of individual differences, starting with attachment to parents, and proceeding step by step throughout life (Jiang et al., 2001). Components of character maturate with a concept of self that is perceived as the person grows in age and with whatever personal or social experiences come with adulthood. Unlike temperament components, character components are instead seen to bear cultural features (Cloninger, 1987).

Sample items for dimensions are: NS expresses a genetic feature comprising impulsive decision making, going to extremes when the probability of receiving a reward emerges, angering easily and active avoidance from being frustrated. Persons with high NS scores are characterised as those persons who are impulsive, explorers, undecided, who change their minds easily, anger easily, are spenders, and who are disorderly and unsystematic. Persons with low novelty seeking scores are those persons who think very much while making any decision. Typically, they may be defined as being tactful, tough, loyal, faithful, not angering easily, sparing, orderly and plain (Arkar, 2005; Cloninger, 1987; Cloninger, Przybeck, Svrakic & Wetzel, 1994). Individuals with high HA scores are defined as individuals who are passive, unconfident, worriers, pessimists, anxious and who are quickly tired (Arkar, 2004). These individuals are also characterised as being careful, cautious, stressful, sometimes cowardly, shy and skeptic. Persons with a HA score that is lower than average are persons who are confident, comfortable, optimistic, do not burden themselves with anything, and are friendly and energetic (Arkar, 2005; Cloninger, 1987; Cloninger et al., 1994). RD may be seen as a genetic bias tendency to P and continuity of behaviour, which manifests itself as excessive emotionality, social attachment and dependence on others' approval (Arkar, 2004). Persons with high reward dependency scores are characterised as being helpful, too willing to satisfy others, hardworking, congenial, emotional, sensitive to social stimuli and able to postpone their satisfaction with the expectation of being rewarded. Conversely, persons with lower than average RD scores are those who are socially uninterested, emotionally cool, practical and tough (stubborn) (Arkar, 2005; Cloninger, 1987; Cloninger et al., 1994). P, the fourth temperament factor, reflects a genetic tendency to continuing a particular behaviour even in the presence of inhibitors such as frustration and tiredness (Arkar, 2004; Cloninger, 1986; 1987). Those with high P work excessively, and they have high ambitions for success. Individuals showing low P are lazy, inactive, unstable and inconsistent. Moreover, they tend to surrender easily when they confront a frustration (Kose, 2003). According to Goldberg (2000), P is important for teachers, because it affects many factors relating to teaching.

Cloninger (1987) defined three dimensions of character in personality theory, taking into account the development of the self concept: SD, C and ST. SD forms by the person's accepting his or her responsibility with regard to his or her own preferences, determination of the objectives that are meaningful in individual terms, and development of skill and confidence in solving problems. Persons with high SD scores are mature, strong, self-sufficient, responsible, reliable, target-oriented and constructive. Their leadership skills, self respect and self confidence are highly developed. Conversely, persons with low SD scores tend to be accusatory, aimless, childish, weak, passive, irresponsible, destructive and unreliable. In clinical observations, these persons are often described as having personality disorders (Arkar, 2005). C represents the social acceptance, empathy, compassion, virtuousness, conscientiousness and tolerance aspects of an individual. People prone to cooperation are described as those persons who are socially tolerant, empathic, helpful and compassionate. Those who are not cooperative are socially intolerant, showing no interest towards other people, not helpful and grudging. These persons first watch out for themselves. They do not attach importance to others' rights and emotions (Arkar, 2005). ST expresses the characteristics of being away from depersonalisation, interpersonal identification and spiritual acceptance, being creative, being away

from selfishness, being faithful, having spiritual emotions and being idealist (Arkar, 2005; 2008; Arkar et al., 2005; Cloninger, 1998; Kose et al., 2004). Persons with high ST scores are described as people who do not pretend, are satiable, patient, do not care only about themselves and who attach importance to spirituality. Conversely, persons with low ST scores are arrogant, unimaginative, do not value art, are materialist and have not been able to realise themselves. Their tolerance to uncertainty and surprise is low. Instead, they want to take control of everything (Arkar, 2005).

The studies support the idea that the character and temperament features of teachers play an important role in the correlation between individual skills in coping with stress and its effect on teachers (Dorman, 2003; Frese & Zapf, 1988). Strelau (2001) expresses that temperament features are an effective risk factor for stress. This makes teachers more vulnerable to stress and burnout (Teven, 2007). Therefore, it is possible that teacher's temperament and character features are an important variable in the determination of burnout. Despite all these, the studies investigating the correlation between personality features and burnout syndrome are very few. No study concerning the temperament and character features of preschool teachers and which addresses the correlation between temperament and character features and burnout has been encountered. However, it is thought that temperament and character features can provide important information in regard to understanding burnout syndrome. Therefore, the aim of this study is to evaluate the correlation between burnout and temperament and/or character features, and to be able to determine the power of temperament and character features in predicting the burnout syndrome variables. In accordance with this purpose answer to the following questions have been sought;

Is there a relationship between preschool teachers' temperament traits and their burnout?

Do temperamental traits show a predictor effect for each burnout variable?

2. Method

2.1. Sample

The data for the present study were collected from 130 preschool education teachers working in the city of Usak. The list of schools and teachers was obtained from the Usak National Education Directorate. All preschool teachers were invited to participate in the study. The measuring instruments and the questionnaire regarding demographical variables were sent (together with the purpose of the research, and a guidance sheet regarding how to fill in the attached questionnaire) in the form of printed materials, to all the aforementioned teachers, inside a sealed envelope. The aforesaid teachers were then asked to return their completed questionnaires in a sealed envelope, without attaching their names. The participants were asked to answer the instruments completely. Out of the total 175 questionnaires, 130 were filled in correctly, and then returned. Participation in the study was voluntary. The participants consisted entirely of female teachers.

2.2. Measures

The Turkish translation of Cloninger's Temperament and Character Inventory (TCI); Cloninger et al. (1993) was used to assess the four dimensions of temperament and the three dimensions of character. It included results for the four dimensions of temperament: NS, HA, RD and P; and three dimensions of character: SD, C and ST. It is a self-report scale consisting of 240 items that are answered 'true' or 'false'. The validity and reliability of the Turkish translation of the test have been confirmed by Kose et al. (2009). As a result of consistency, validity and reliability studies on the Turkish TCI scales and subscales, the Cronbach's alpha value was determined to be between 0.56 and 0.78 for temperament, and 0.66 between and 0.80 for character (Kose et al., 2009).

Teachers completed the educator-specific version of the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981), a 22-item measure assessing how frequently teachers experienced feelings of

burnout. The MBI which was originally developed by Maslach and Jackson (1981) for measuring burnout has been translated and adapted into Turkish and its validity-reliability studied by Ergin (1992). Teacher burnout was included in the same section of the survey with work pressure and teacher efficacy, and teachers were asked to respond to how frequently the statements applied to them in the past year. Each item (e.g., 'I feel used up at the end of the work day') was measured on a seven-point scale ranging from 1 (*never*) to 7 (*every day*). This measure also contains three subscales of burnout: emotional exhaustion (nine items), depersonalisation (five items), and personal accomplishment (eight items), from which each item can be analysed separately, or the measure can be used as a whole. In the current study, the Cronbach's α's were 0.75 for emotional exhaustion, 0.60 for depersonalisation and 0.66 for personal accomplishment.

2.3. Procedure

In this study, the questionnaires were administered to teachers individually. Before administration, participants were informed about the nature and goal of the study. They were told that various aspects of burnout would be investigated. In order to provide strict confidence, participants were asked not to write their names on the questionnaires. Consent for participation was verbally obtained from the participants before administration of the questionnaires. Then, the questionnaires were described to the participants and they were informed about how they should answer items on the questionnaires. Moreover, participants were asked to complete the mentioned measures as honestly and completely as possible, and were told that they could refuse to answer any items in the questionnaires that made them uncomfortable.

2.4. Data analysis

The Pearson product-moment correlation coefficient and multiple regression analysis were used to analyse the data. The Pearson Product-Moment Correlation Coefficient technique was used to reveal the relationship between temperament and character traits and burnout dimensions. Table 2 provides these correlational data. Multiple regression analysis was used to assess the effects that the temperament and character traits of teachers have on their burnout dimensions. The collected data were entered into the SPSS version 20.0 for Windows for analysis.

3. Results

Correlations among the study variables are presented in Table 1. As shown in Table 1, there is a positive significant correlation between the emotional exhaustion dimension of burnout and SD. SD increases as the level of emotional exhaustion increases. On the other hand, there is a negative significant correlation between emotional exhaustion and P. The P level of the teachers decreases as their emotional exhaustion level increases. There is a positive significant correlation between the depersonalisation dimension of burnout and SD. SD increases as depersonalisation increases. When examined in Table 1, it is seen that there is a positive significant correlation between the personal accomplishment dimension of burnout and HA. HA increases as personal accomplishment increases.

Table 1. Correlations between among burnout, and temperament and character Variables

	1	2	3	4	5	6	7	8	9	10
1. Emotional Exhaustion		0.56	−0.28	0.02	−0.14	−0.13	−0.32**	0.21	.04	−.06
2. Depersonalisation			−.51	−0.04	−0.12	−0.06	0.01	0.18*	−0.01	−0.4
3. Personal Accomplishment				−0.06	0.45**	−0.07	−0.06	−0.13	−0.06	−0.08
4. NS					−0.48	0.10	−0.12	−0.14	−0.11	−0.16
5. HA						−0.23	−0.19	−0.21	−0.04	0.01

6. RD	0.05	0.09	0.51	0.10
7. P		0.22	0.05	0.12
8. SD			0.41	−0.26
9. C				0.15
10. ST				

*p < 0.05, **p < 0.01.

Table 2. Results of multiple regression analysis for predicting emotional exhaustion

	β	t	p
NS	−0.16**	−0.150	0.88
HA	−0.18	−1.721	0.08
RD	−0.23*	−2.175	0.03
P	−0.15	−1.670	0.09
SD	0.21	1.840	0.06
C	0.07	0.614	0.54
ST	0.02	0.242	0.80
$R = 0.54$ $R^2 = 0.32*$			
$F(7,129) = 2.28$			

$N = 130$, *p < 0.05 **p < 0.001.

Table 2 illustrates that the multiple regression model is significant ($p < 0.05$, $p < 0.001$). As demonstrated by the results, the temperament dimension variables (NS and RD levels) reveal a significant relationship to teachers' emotional exhaustion. The results show that teacher's temperament and character dimensions together significantly explain the emotional exhaustion dimension of burnout ($R^2 = 0.32$, $F(7,129) = 2.28$, $p < 0.05$). All these variables have a significant predictor effect on emotional exhaustion. Moreover, it was found that NS ($β = −0.16$, $p < 0.001$) and RD ($β = −0.23$, $p < 0.05$) made specific contributions to the model. Moreover, it was found that NS and RD also made specific contributions to the model.

Table 3. Results of multiple regression analysis for predicting depersonalisation

	β	t	p
NS	−0.10	−0.923	0.35
HA	−0.16	−1.461	0.14
RD	−0.07	−0.875	0.50
P	−0.07	−0.740	0.46
SD	0.18	1.622	0.10
C	−0.07	−0.635	0.52
ST	0.02	0.200	0.84
$R = 0.35$ $R^2 = 0.06$			
$F(7,129) = 1.152$			

$N = 130$, *p < 0.05 **p < 0.001.

Results of the analysis indicate that there were no significant effects of teachers' temperament and character dimensions on the depersonalisation dimension of burnout.

Table 4. Results of multiple regression analysis for predicting personal accomplishment

	β	t	p
NS	0.01	0.173	0.86
HA	0.24*	2.195	0.03*
RD	−0.00	−0.033	0.97
P	0.02	0.242	0.80
SD	−0.12	−1.064	0.28
C	0.01	0.120	0.90
ST	−0.12	−1.261	0.21
$R = 0.29 \ R^2 = 0.18*$			
$F(7,129) = 1.620$			

$N = 130$, *$p < 0.05$ **$p < 0.001$.

The multiple regression analysis shows that there is a significant association between teachers' temperament and character traits and personal accomplishment ($R^2 = 18$, $p < 0.05$). Collectively, the temperament and character traits predict approximately 29% of the variance in teacher burnout. Furthermore, teachers' HA levels are seen to significantly predict their personal accomplishment levels.

4. Discussion

This research was designed around two research questions based on the relationships between among the seven domains of temperament, and the three dimensions of burnout. In order to examine the relationship between teachers' temperament and character traits and their burnout dimensions, Pearson Moment Correlations were calculated. The results indicate that the SD subscale of the TCI was positively correlated, and the P subscale of the TCI was negatively correlated with the emotional exhaustion subscale of the MBI. The SD subscale of the TCI was positively correlated with depersonalisation subscale of the MBI. HA was also significantly related to personal accomplishment. According to research results, it is predicted that NS and RD levels are negatively related to emotional exhaustion. In this research, the findings indicate that the temperament and character traits are not significantly correlated with depersonalisation. On the other hand, results of the regression analysis show that there is a positive relationship that exists between personal accomplishment and HA.

Among the factors pertaining to teachers which lead to burnout, teachers' temperament and character features confront us as a factor that is expressed but that has not been studied sufficiently. Different responses among individuals within the same working environment to stress and burnout may be explained through personality features (McCroskey, Valencic & Richmond, 2004). Teachers' temperament and character features are a strong determinant of their behaviours in the classroom, in teacher evaluations and in student–teacher relationships and communication (Beatty, McCroskey & Valencic, 2001; McCroskey, et al., 2004; Wahba & McCroskey, 2005). While some teachers are very gentle, tolerant and patient, others may not exhibit these features. In this case, it is likely that some individuals suffer burnout more than others (Buhler & Land, 2003). Accommodating teachers cope better with potential burnout (Teven, 2007).

In recent studies, most focus on personality structure as a variable that balances the conditions that create burnout. It has been reported that there is a positive correlation between neuroticism as a personality feature and the emotional exhaustion dimension, and a negative correlation between extroversion and being open to new experiences and the dimensions of becoming insensitive and the sense of low personal accomplishment (Halbesleben & Buckley, 2004). In studies comparing the personality features of exhausted teachers and the contextual variables within the framework of new orientations of burnout studies, both factors were found to be explanatory. Both personality features

(such as neuroticism, introversion and being close to new experiences) and contextual variables (such as their profession not being considered reputable, and working in rural areas) are effective on burnout (Cano-Garcia et al., 2005). Teachers who have hardiness as a personality feature have been shown to cope easier with the harmful effects of burnout (Chan, 2003). Ghorpade, Lackritz and Singh (2007) state that academic burnout is associated with personality. In his study investigating burnout of teachers working with the mentally handicapped, Strassmeier (1992) has used the Maslach Burnout Scale and has applied it to 98 teachers. As a result of the study, it was observed that burnout was not associated with the demographic characteristics of the teachers, and that the personality characteristics of these teachers were highly associated with burnout.

Several studies have shown a negative correlation between extroversion and burnout. More specifically, a negative correlation has been found between extroversion and emotional exhaustion (Eastburg, Williamson, Gorsuch & Ridley, 1994; Francis, Louden & Rutledge, 2004; Michielsen, Willemsen, Croon, De Vries & Van Heck, 2004; Piedmont, 1993). Francis et al. (2004) and Zellars et al. (2000) also found a negative correlation between extraversion and depersonalisation. Piedmont (1993) found a positive correlation between conscientiousness and personal accomplishment. Lepine, Lepine and Jackson (2004) found a negative correlation between conscientiousness and emotional exhaustion. In the study they conducted using the Eysenck personality model, Fontana and Abouserie (1993) found a correlation between burnout and introversion. In a study, emotional exhaustion was found to be associated with P and compatibility, insensitiveness was found to be associated with compatibility, and personal accomplishment was found to be associated with P (Mills & Huebner, 1998). Introversion was found to be an important predictor of emotional exhaustion and depersonalisation and low personal accomplishment (Fontana & Abouserie, 1993; Zellars et al., 2000; Cano-Garcia et al., 2005).

In the study by Brissie, Hoover-Dempsey and Bassler (1988) investigating the subject matter 'Individual and Situational Causes of Teacher Exhaustion', the researchers focused on the individual and situational factors that are thought to influence burnout, and investigated teacher burnout. According to the study findings, those teachers who found teaching personally rewarding and were known to have high competency have reported that they have felt less burnout sensation. Teachers who think that they are sufficiently rewarded influence their students positively, and get more satisfaction from teaching.

5. Conclusion

Burnout is expected to emerge as a result of long-continued stress in individuals, including teachers, who work face to face with people for a long time (Jennett, Harris & Mesibov, 2003). Jesus and Lens (2005) state that teachers suffer burnout more than other professional groups. Today, the working fields of preschool teachers are diverse, and they also assume many duties related to the education program, students, parents, the school community and their personal field of study (Pillay, Goddard & Wilss, 2005). This may increase their stress. Attention levels of a stressed and anxious teacher, his or her tolerance to students and his or her levels of being supportive of the development of students may be low (Blase, 1986; Kokkinos, Panayiotou & Davazoglou, 2005). As the stress of the teacher increases, the students' likelihood of suffering stress and anxiety also increases (Sinclair & Ryan, 1987).

This study does have several limitations. One of the limitations of the study is that it was conducted only among teachers serving in a certain region. Hence, the possibility of generalising these results is low. Second, this study has been conducted over a limited sample group. Similar sample groups should be expanded in future studies.

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References

Aluya, A., Blanch, A. & Garcia, L. F. (2005). Dimensionality of the Maslach Burnout Inventory in school teachers: a study of several proposals. *European Journal of Psychological Assessment, 21*(1), 67–76.

Arkar, H. (2004). *Cloninger'in psikobiyolojik kisilik kuraminin Turk ornekleminde sinanmasi* (Doctoral Thesis). Department of Psychology, Social Science Institute, Ege University, Izmir, Turkey [In Turkish].

Arkar, H. (2005). Cloninger'in psikobiyolojik kisilik kurami. *Turk Psikoloji Bulteni, 11*(36), 82–95 [In Turkish].

Arkar, H. (2008). Cloninger'in mizac ve karakter boyutları ile kisilik bozukluklari arasindaki iliski. *Klinik Psikiyatri Dergisi, 11*, 115–124 [In Turkish].

Arkar, H., Sorias, O., Tunca, Z., Safak, C., Alkin, T., Binnur Akdede, B., ... & Cimilli, C. (2005). Factorial structure, validity, and reliability of the Turkish temperament and character inventory. *Turkish Journal of Psychiatry, 16*(3), 190–204.

Beatty, M. J., McCroskey, J. C. & Valencic, K. M. (2001). The biology of communication: a communibiological perspective. Creskill, NJ: Hampton Press.

Blase, J. J. (1986). A qualitative analysis of sources of teacher stress: consequences for performance. *American Educational Research Journal*, *23*(1), 13–40.

Boles, J. S., Dean, D. H., Ricks, J. M., Short, J. C. & Wang, G. (2000). The dimensionality of the Maslach Burnout Inventory across small business owners and educators. *Journal of Vocational Behavior, 56*(1), 12–34.

Borman, G. D. & Dowling, N. M. (2008). Teacher attrition and retention: a meta-analytic and narrative review of the research. *Review of Educational Research, 78*(3), 367–409.

Brissie, J. S., Hoover-Dempsey, K. V. & Bassler, O. C. (1988). Individual, situational contributors to teacher burnout. *Journal of Educational Research, 82*(2), 106–112.

Buhler, K. E. & Land, T. (2003). Burnout and personality in intensive care: an empirical study. *Hospital Topics, 81*(4), 5–12.

Burisch, M. (2002). A longitudinal study of burnout: the relative importance of dispositions and experiences. *Work and Stress, 16*(1), 1–17.

Cano-Garcia, F. J., Padilla-Munoz, E. M. & Carrasco-Ortiz, M. A. (2005). Personality and contextual variables in teacher burnout. *Personality and Individual Differences, 38*, 929–940.

Chan, D. W. (2003). Hardiness and its role in the stress-burnout relationship among prospective Chinese teachers in Hong Kong. *Teaching and Teacher Education, 19*(4), 381–395.

Cloninger, C. R. (1986). A unified biosocial theory of personality and its role in the development of anxiety states. *Psychiatric Developments, 4*(3), 167–226.

Cloninger, C. R. (1987). A systematic method for clinical description and classification of personality variants. *Achieves of General Psychiatry*, *44*(6), 573–588.

Cloninger, C. R. (1998). A psychobiological model of temperament and character. In I. J. Richter, M. Eisemann, K. Bloow & D. Schlafke (Eds.), *The development of psychiatry and its complexity*. Berlin, Germany: Waxmann.

Cloninger, C. R., Svrakic, D. M. & Przybeck, T. R. (1993). A psychobiological model of temperament and character. *Archives of General Psychiatry, 50*(12), 975–990.

Cloninger, C. R., Przybeck, T. R., Svrakic, D. M. & Wetzel, R. D. (1994). *The temperament and character inventory (TCI): a guide to its development and use*. St. Louis, MO: Washington University Center for Psychobiology of Personality.

Cordes, C. L., Dougherty, T. W. & Blum, M. (1997). Patterns of burnout among managers and professionals: a comparison of models. *Journal of Organizational Behavior, 18*(6), 685–701.

Coulter, M. A. & Abney, P. C. (2009). A study of burnout in internatıonal and country of origin teacher. *International Review of Education*, *55*, 105–121.

Dorman, J. P. (2003). Relationship between school and classroom environment and teacher burnout: a LISREL analysis. *Social Psychology of Education, 6*, 107–127.

Eastburg, M. C., Williamson, M., Gorsuch, R. & Ridley, C. (1994). Social support, personality, and burnout in nurses. *Journal of Applied Social Psychology, 24*(4), 1233–1250.

Ergin, C. (1992). Doktor ve hemsirelerde tukenmislik ve Maslach Tukenmislik Olceginin uyarlanmasi. 7. In R. Bayraktar & I. Dag (Eds.), *Ulusal Psikoloji Kongresi Bilimsel Çalışmaları* (pp. 143–154). Ankara, Turkey: Hacettepe Universitesi [in Turkish].

Fontana, D. & Abouserie, R. (1993). Stress levels, gender and personality factors in teachers. *British Journal of Educational Psychology*, *63*, 261–270.

Francis, L. J., Louden, S. H. & Rutledge, C. J. F. (2004). Burnout among roman catholic parochial clergy in England and Wales: myth or reality? *Review of Religious Research, 46*(1), 5–19.

Frese, M. & Zapf, D. (1988). Methodological issues in the study of work stress: objective vs. subjective measurement work stress and the question of longitudinal studies. In C. L. Cooper & R. Payne (Eds.), *Causes, coping, and consequences of stress at work* (pp. 375–411). Chichester, UK: Wiley.

Friedman, I. A. (2000). Burnout in teachers: shattered dreams of impeccable professional performance. *Journal of Clinical Psychology, 56*(5), 595–606.

Ghorpade, J., Lackritz, J. & Singh, G. (2007). Burnout and personality: evidence from academia. *Journal of Career Assessment, 15*(2), 240–256.

Goldberg, M. F. (2000). Committed to high-quality education for all children: an interview with Hugh Price. *Phi Delta Kappa, 81*, 604–606.

Grayson, J. L. & Alvarez, H. K. (2008). School climate factors relating to teacher burnout: a mediator model. *Teaching and Teacher Education, 24*(5), 1349–1363.

Griffith, E. M., Pennington, B. F., Wehner, E. A. & Rogers, S. J. (1999). Executive functions in young children with autism. *Child Development, 70*(4), 817–832.

Griggs, M. S., Gagnon, S. G., Huelsman, T. J., Kiddler-Ashley, P. & Ballard, M. (2009). Student-teacher relationships matter: moderating influences between temperament and preschool social competence. *Psychology in the Schools, 46*(6), 553–567.

Guarino, C. M., Santibanez, L. & Daley, G. A. (2006). Teacher recruitment and retention: a review of the recent empirical literature. *Review of Educational Research, 76*(2), 173–208.

Hakanen, J. J., Bakker, A. B. & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology, 43*(6), 495–513.

Halbesleben, J. R. B. & Buckley, M. R. (2004). Burnout in organizational life. *Journal of Management*, *30*(6), 859–879.

Jackson, S. E., Schwab, R. L. & Schuler, R. S. (1986). Toward an understanding of the burnout phenomenon. *Journal of Applied Psychology, 71*(4), 630–640.

Jennett, H. K., Harris, S. L. & Mesibov, G. B. (2003). Commitment to philosophy, teacher efficacy, and burnout among teachers of children with autism. *Journal of Autism and Developmental Disorders, 33*(6), 583–593.

Jennings, P. A. & Greenberg, M. T. (2009). The prosocial classroom: teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research, 79*(1), 491–525.

Jesus, S. N. & Lens, W. (2005). An integrated model for the study of teacher motivation. *Applied Psychology: An International Review, 54*(1), 119–134.

Jiang, N., Sato, T., Hara, T., Takedomi, Y., Ozaki, I. & Yamada, S. (2001). Correlations between trait anxiety, personality and fatigue: study based on the Temperament and Character Inventory. *Journal of Psychosomatic Research, 55*(6), 493–500.

Kandir, A. (2001). Cocuk gelisiminde okul oncesi egitim kurumlarinin yeri ve onemi. *Milli Egitim Dergisi, 151*[In Turkish].

Kokkinos, C. M., Panayiotou, G. & Davazoglou, A. M. (2005). Correlates of teacher appraisals of student behaviors. *Psychology in Schools, 42*, 79–89.

Kose, S. (2003). A psychobiological model of temperament and character: TCI. *New Symposium, 41*, 86–97.

Kose, S., Sayar, K., Ak, I., Aydin, N., Kalelioglu, U., Kirpina, I., … & Cloninger, C. R. (2004). Turkish version of the Temperament and Character Inventory (TCI): reliability, validity, and factorial structure. *Klinik Psikofarmakoloji Bulteni, 14*, 25–35 [In Turkish].

Kose, S., Sayar, K., Kalelioglu, U., Aydin, N., Celikel, F. C., Gulec, H., … & Cloninger, C. R. (2009). Normative data and factorial structure of the Turkish version of the Temperament and Character Inventory. *Comprehensive Psychiatry, 50*(4), 361–368.

Yoleri, S. (2018). Examining the association between burnout and temperament and character traits of preschool teachers. *Cypriot Journal of Educational Science. 13*(2), 436-447.

Lambert, R. G. & McCarthy, C. J. (Eds.). (2006). *Understanding teacher stress in an era of accountability*, Vol. III. Greenwich, Connecticut: Information Age Publishing, Inc.

Lee, H., Song, R., Cho, Y. S., Lee, G. Z. & Daly, B. (2003). A comprehensive model for predicting burnout in Korean nurses. *Journal of Advanced Nursing, 44*(5), 534–545.

LePine, J. A., LePine, M. A. & Jackson, C. L. (2004). Challenge and hindrance stress: relationships with exhaustion, motivation to learn, and learning performance. *Journal of Applied Psychology, 89*, 883–891.

Maslach, C. (1982). *Burnout: The cost of caring*. Englewood Cliffs, NJ: Prentice Hall.

Maslach, C. & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior, 2*(2), 99–113.

McCarthy, C. J., Lambert, R. G., O'Donnell, M. & Melendres, L. T (2009). The relation of elementary teachers' experience, stress, and coping resources to burnout symptoms. *Elementary School Journal, 109*(3), 282–300.

McCroskey, J. C., Valencic, K. M. & Richmond, V. P. (2004). Toward a general model of instructional communication. *Communication Quarterly, 53*, 197–210.

McElfatrick, S., Carson, J., Annett, J., Cooper, C., Holloway, F. & Kuipers, E. (2000). Assessing coping skills in mental health nurses: is an occupational specific measure better than a generic coping skills scale? *Personality and Individual Differences, 28*, 965–976.

Michielsen, H. J., Willemsen, T. M., Croon, M. A., De Vries, J. & Van Heck, G. L. (2004). Determinants of general fatigue and emotional exhaustion: a prospective study. *Psychology and Health, 19*(2), 223–235.

Miller, J. F. (2011). Burnout and its impact on good work in nursing. *Journal of Radiology Nursing, 30*(4), 146–149.

Mills, L. B. & Huebner, E. S. (1998). A prospective characteristics, occupational stressors, and burnout among school psychology practitioners. *Journal of School Psychology, 36*(1), 103–120.

Mullins, L. J. (1993). *Management and organisational behaviour* (3rd ed.). London, UK: Pitman.

Ozbey, S. (2012). An investigation on the relationships among burnout levels of preschool teacher trainees, certain variables and social support. *International Journal of Academic Research, 4*(1), 154–161.

Piedmont, R. L. (1993). A longitudinal analysis of burnout in the health care setting: the role of personal dispositions. *Journal of Personality Assessment, 61*(3), 457–473.

Pienaar, J. & Willemse, S. A. (2008). Burnout, engagement, coping and general health of service employees in the hospitality industry. *Tourism Management, 29*(6), 1053–1063.

Pillay, H., Goddard, R. & Wilss, L. (2005). Well-being, burnout and competence: implications for teachers. *The Australian Journal of Teacher Education, 30*(2), 21–33.

Rothbart, M. K. (1989). Temperament and development. In G. A. Kohnstamm, J. E. Bates & M. K. Rothbart (Eds.), *Temperament in childhood* (pp. 187–248). New York, NY: Wiley.

Schaufeli, W. B., Maslach, C. & Marek, T. (1993). *Professional burnout: recent developments in theory and research*. Washington, DC: Taylor & Francis.

Sinclair, K. E. & Ryan, G. (1987). Teacher anxiety, teacher effectiveness, and student anxiety. *Teacher and Teacher Education*, *3*(3), 249–253.

Spilt, J. L., Koomen, H. M. Y. & Thijs, J. T. (2011). Teacher wellbeing: the importance of teacher-student relationships. *Educational Psychology Review, 23*, 457–477.

Stoeber, J. & Rennert, D. (2008). Perfectionism in school teachers: relations with stress appraisals, coping styles, and burnout. *Anxiety, Stress, & Coping, 21*(1), 37–53.

Strassmeier, W. (1992). Stress amongst teachers of children with mental handicaps. *International Journal of Rehabilitation Research, 15*(3), 235–239.

Strelau, J. (2001). The concept and status of trait in research on temperament. *European Journal of Personality, 15*(4), 311–325.

Teven, J. J. (2007). Teacher temperament: correlates with teacher caring, burnout, and organizational outcomes. *Communication Education, 56*, 382–400.

van Dick, R. & Wagner, U. (2001). Stress and strain in teaching: a structural equation approach. *British Journal of Educational Psychology, 71*, 243–259.

Yoleri, S. (2018). Examining the association between burnout and temperament and character traits of preschool teachers. *Cypriot Journal of Educational Science. 13*(2), 436-447.

Wahba, J. S. & McCroskey, J. C. (2005). Temperament and brain systems as predictors of assertive communication traits. *Communication Research Reports, 22*, 157–164.

Wilson, V. (2002). Feeling the strain: an overview of the literature on teachers' stress (SCRE Research Report No. 109). Retrieved from https:==dspace.gla.ac.uk=bitstream=1905=213=1=109.pdf [Scottish Council for Research in Education website].

Yoleri, S. & Bostanci, O. (2012). Determining the factors that affect burnout and job satisfaction among academicians: a sample application on the Hitit University. *Turkish Studies, 7*(4–I), 589–600.

Yoon, J. S. (2002). Teacher characteristics as predictors of teacher-student relationships: stress, negative affect, and self-efficacy. *Social Behavior and Personality, 30*, 485–493.

Zangwill, O. L. (1990). *Modern psikolojinin gelisimi* (Xev. Y. Ozakpınar). Konya, Turkey: Selcuk Universitesi Yayinlari [In Turkish].

Zellars, K. L., Perrewe, P. L. & Hochwarter, W. A. (2000). Burnout in health care: the role of the five factors of personality. *Journal of Applied Social Psychology, 30*(8), 1570–1598.