

On the Relationship between Emotional Intelligence and Teacher Burnout among High School Teachers

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This study investigated the relationship between Emotional Intelligence (EI) and teacher burnout among Iranian high school teachers. The role of teaching experience was also taken into consideration. To this end, 125 participants were selected through convenience sampling. The participants were given a set of questionnaires including Demographics, Farsi Maslach Burnout Inventory-Educators Survey, and Farsi 41-Revised Emotional Intelligence Scale. Data were analyzed using such statistical techniques as Pearson product moment correlation coefficient, multiple regression, and MANOVA. The results of the study revealed that there was a significant relationship between EI and burnout among high school teachers. The results of the multiple regressions also indicated that EI could predict a significant amount of variability in burnout components. As far as experience is concerned, there was a significant difference between moderately and highly experienced teachers in their emotional intelligence. The pedagogical implications of the study such as the preventive role of EI, further validation of this construct, and the creation of preventive strategies as regards for burnout are also discussed.

Keywords: emotional intelligence, teacher burnout, high School teachers, moderately experienced teachers, highly experienced teachers

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The sustained period of emotional, mental, and psychological stress may lead to a phenomenon among teachers which is called burnout (Yong & Yue, 2007). The existence of this phenomenon in an educational system is like a syndrome imperiling its true development. So as to combat this malignancy, different preventive strategies and procedures have been proposed. Emotional intelligence (EI) is also one of the potential concepts which can be used to predict and prevent this phenomenon (Chan, 2004).

The present paper is, thus, intended to find possible relationships between EI and teacher burnout. Finding relationships between EI and burnout is not the only purpose of this study, specifying whether any components of EI predicts any components of burnout is the second reason for carrying out this study. Therefore, this study seeks answers to the following research questions:

1. Is there any relationship between EI and burnout among high school teachers?
2. Is there any significant difference between moderately experienced and highly experienced teachers in their levels of emotional intelligence and burnout?

Accordingly, the following hypotheses would be proposed:

1. There is a positive relationship between EI and burnout among high school teachers.
2. There are significant differences between moderately experienced and highly experienced teachers in their levels of emotional intelligence and burnout.

Review of the literature

What is emotional intelligence?

Due to the emergence of contradictory and inconsistent findings in the EI domain, one cannot offer a comprehensive and exact definition of the concept yet (Mavroveli, Petrides, Rieffe & Bakker, 2007; Ciarrochi, Chan & Caputi, 2000; Morrison, 2007). This pluralism has led to the emergence of different, though complementary (Ciarrochi, Chan & Caputi, 2000),

definitions coming from different perspectives and lines of research. The original and academic definition of EI appeared in 1990 by Salovey and Mayer which then was revised in 1997. According to the revised version EI is “the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others” (Mayer, Salovey & Caruso, 2000, p.4). This definition is offered within the ability model of EI. Right after this academic interest, it was Goleman (1995) who popularized the concept with his best-selling book *Emotional Intelligence*. For Daniel Goleman EI is a new name for an old entity: character (Mayer, Salovey & Caruso, 2000,). Generally speaking, he defines EI as the ability to recognize and regulate emotions in ourselves and others (Goleman, 2001). Another line of research comes from Bar-On. He is the first to coin the term Emotion Quotient. He defines EI as “an array of non-cognitive capabilities, competencies, and skills that influence one’s ability to succeed in coping with environmental demands and pressures” (Bar-On, 1997). In this definition, like that of Goleman, personality traits such as warmth and outgoingness are blended with EI (Kluemper, 2008). These last two definitions belong to the mixed model school of EI (Caruso, Mayer & Salovey, 2002; Mayer, Roberts, Barsade, 2008; Morrison, 2007).

Different models of EI: ability or mixed?

Salovey and Mayer: an ability model

Ability model of EI concerns “actual emotion-related abilities” and is measured through performance tests rather than self-report measures (Mavroveli, Petrides, Rieffe, & Bakker, 2007; Petrides & Furnham, 2000; Mayer, 2001; Petrides & Furnham, 2001). This model due to its close kinship to cognitive ability is mainly studied with regard to traditional or psychometric intelligence (Petrides & Furnham, 2001; Petrides & Furnham, 2000). Salovey and Mayer claim that their proposed model of EI is in line with the principles of the ability model (Mayer, Salovey & Caruso, 2000; Mayer, Caruso & Salovey, 2000; Mayer & Salovey, 1997;

Mayer, 2001). Their model consists of the following four branches or subcomponents, perception and expression of emotions, assimilation of emotions in thought, understanding and analyzing emotions, and regulation of emotions.

The first realization of this model was operationalized in the guise of a measure named the Multibranch Emotional Intelligence Scale (MEIS) (Mayer, Salovey & Caruso, 2000; Ciarrochi, Chan & Caputi, 2000). But the current measure of Mayer and Salovey's model of EI is Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) (O'Connor & Little, 2003). The former consists of a 3 factor structure, emotional perception, emotional understanding, and emotional management (Mayer, Salovey & Caruso, 2000; Morrison, 2007). While in the latter all four components are integrated into the scale. There are claims over the strengths of this measure over the previous ones. The proponents of this measure claim that the construct, EI, is measured here through actual performance rather than self-report method, that the measure includes a wide variety of behaviors, that the reliability of its subscales is enough, and that it correlates significantly with other criterion measures (Petrides & Furnham, 2001; Petrides, Furnham & Mavroveli, 2007).

Goleman: A mixed Model

Goleman (1995), inspired by Mayer and Salovey's findings, is the one who popularized the concept in the public through his bestselling book *Emotional Intelligence* (Mayer & Cobb, 2000; Mayer, 2001). The model proposed by Goleman outlines 5 components of EI. The first one, knowing one's emotions, is concerned with recognizing and monitoring feelings as they happen. The second one, managing emotions, concerns the regulation and control of emotions such as anger in different situations. The third one, motivating oneself, is the use of an emotion geared for a specific purpose. The fourth one, recognizing emotions in others, is related to the awareness of others' emotions. The last is handling the relationship which is the management of emotions in others (Goleman, 1995). He then

developed a measure based on his model named Emotional Competence Inventory (Goleman, 1998).

Bar-On: A mixed model

The question addressed by Bar-On's model is that why some individuals manage to be more successful than others (Mayer, Salovey, & Caruso, 2000; Morrison, 2007). In this model EI is defined as a mixture of non-cognitive abilities and skills that make one perform better than other individuals in specific circumstances (Bar-On, 1997). This model is mixed, like Goleman's, in that there are traces of personality traits in it (Mayer, Salovey, & Caruso, 2000). There are 5 constituents recognized as the building blocks of this model. The first one, intrapersonal skills, consists of emotional self-awareness, assertiveness, self-regard, self-actualization, and independence. The second one, interpersonal skills, is concerned with interpersonal relationships, social responsibility, and empathy. The third one, adaptability, is related to the problem solving skills, reality testing and flexibility. The fourth one, stress management skills, concerns stress tolerance and impulse control. The last component, general mood, relates to such concepts as happiness and optimism (Bar-On, 1997). The scale or questionnaire that is developed on the basis of this model is Bar-On's Emotion Quotient Inventory (1997, 2002).

Teacher burnout

There is no controversy over the fact that teaching is one of the highly stressed professions (Masféty, Seidel & Dedieu, 2007). The high amount of stress results in burnout which itself leads to problems in teachers' psychological and physical well-being, affects the quality of teaching, and endangers the development of a sound education system (Yong & Yue, 2007; Kyriacou, 1987). Factors such as environmental, personal, interpersonal, and organizational sources (Maslach, 1986; Grayson & Alvarez, 2008; Schwab, 1983; Blase, 1982; Zapf, Seifert, Schmutte, Mertini, & Holz, 2001) have been mentioned as the main reasons for

burnout. Some solutions and strategies have also been offered to prevent and ameliorate this syndrome. “Stress management training, improvement of managerial practices, and the provision of organizational support” (Walker, 1986; p.50), personal, social and organizational strategies (Maslach, 1986), development of job engagement strategies and self-efficacy (Chan, 2007) are the most cited strategies for soothing this syndrome.

Dimensions of burnout

Maslach and Jackson (1981), and later on Maslach herself (1982) proposed a model of burnout which consisted of three components, emotional exhaustion (EE), depersonalization (DEP), and lack of personal accomplishment (PA).

Emotional exhaustion. EE is the heart of burnout (Grayson & Alvarez, 2008). It is “feelings of being emotionally overextended and drained by one’s contact with other people” (Maslach, 1986; p.61). Those teachers who are emotionally exhausted get depleted of their emotions and soon get used up (Friesen & Sarros, 1989). This may happen when teachers are unable to appropriately regulate their emotions when they engage in interactions with their students (Zapf, et. al., 2001). This phenomenon does not also happen overnight, rather it is “the gradual erosion of important technical, psychological, and social resources” (Blase, 1982; p.98).

Depersonalization. This dimension is defined as “a very cynical and dehumanized perception of [students]... in which they are labeled in derogatory ways and treated accordingly” (Friesen & Sarros, 1989; p.101). When teachers get depersonalized, they develop negative attitudes towards their students (Maslach, 1986; Schwab, 1983). This depersonalization can emerge when teachers get emotionally exhausted and fed up. They become highly pessimistic, cut their relationships with other teachers, and do not engage in interaction with students and their parents due to this depersonalization process.

Lack of personal accomplishment. Lack of personal accomplishment is “a decline in one’s sense of competence and of successful achievement in one’s work with people” (Maslach, 1986; p.61). Teachers get dissatisfied with their performance in the classroom. They think they cannot bring about change and the expected outcomes in the classroom (Yong & Yue, 2007). They think they are useless with regard to their students’ lives because they are spending too much time with their students, while in reality their role in students’ lives is too meager to be practical and worthy of recognition.

Method

Participants

The participants of this study consist of 125 high school teachers. These teachers taught different courses including Physics, Chemistry, Literature, Arts, Physical Education, Religious Studies, etc. The participants were selected through convenient (availability) sampling procedure. The age of the teachers ranged from 21 to 50 years. The study was designed in a way to include teachers with two levels of experience (Table 1): moderately experienced (3-5 years) and highly experienced (more than 5 years).

Table 1
Teachers’ Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3-5	27	21.6	21.6	21.6
	6-more	98	78.4	78.4	100.0
Total		125	100.0	100.0	

Instruments

Maslach Burnout Inventory-Educators Survey

The scale used most widely by researchers to measure burnout is the

Maslach Burnout Inventory (MBI). This instrument was developed by Maslach and Jackson (1981) to be used in human service occupations. However, because there was a crying need to measure burnout in teachers, a second version of the MBI was soon developed for use by educational professions and was labeled Maslach Burnout Inventory-Educators Survey (MBI-ES) (Maslach, Schaufeli, & Leiter, 2001). This instrument was used in this study to measure teachers' level of burnout.

The reliability coefficients for the subscales were calculated as .90 for Emotional Exhaustion, .79 for Depersonalization, and .71 for reduced Personal Accomplishment. (Maslach et al, 2001). Iwanicki and Schwab (1981) reported Cronbach alpha estimates of .90 for EE, .76 for DEP, and .76 for PA. This inventory was translated into Persian and the reliability coefficients were for each subscale reported as .84 for EE, .75 for DEP, and .74 for PA (Gargari, 1995). In this study the reliability coefficients are reported as .84 for EE, .72 for DEP, and .80 for PA.

Farsi 41-Revised Emotional Intelligence Scale

This instrument is a revised version of Schutte et al's Emotional Intelligence Scale (Schutte et al., 1998). The original one, following the trait emotional intelligence school, consists of 33 items and measures three underlying constructs such as Optimism/Mood Regulation, Utilization of Emotions, and Appraisal of Emotion (Schutte et al, 1998, Austin, Saklofske, Huang, & McKenney, 2004). Austin, Saklofske, Huang, & McKenney (2004) added 8 more items to the scale. These 8 items were all reverse scored because the lack of reversed scored items was one of the concerns voiced by some scholars with regard to the original scale (Saklofske, Austin & Minski, 2003, Petrides and Furnham, 2000). In this revised version the number of items increased to 41. This new scale has a three-factor structure consisting of Optimism/Mood Regulation, Utilization of Emotions, and Appraisal of Emotions. The first factor or component concerns the way people regulate and control for emotions. The second component or factor is related to the way people make use of emotions so as to foster thinking, and the third one relates to the way

people identify and recognize emotions (Austin et al, 2004).

The 41-revised Emotional Intelligence scale was translated into Farsi by Bakhshipour, Zarean, and Asadollahpour (2008). The total reliability coefficient of the scale was reported as .84. The internal reliability coefficients of the three subscales were also calculated and reported as .78 for Optimisim/Mood Regulation, .98 for Utilization of emotions, and .76 for Appraisal of emotions. The internal coefficient of the scale is reported as .85 in the present study.

Data collection

A set of questionnaires, consisting of F41-REIS, FMBI-ES, and Demographics, was distributed among the teachers. First the teachers were presented with a very brief introduction of the purpose of the research, and then two main constructs of the study, emotional intelligence and teacher burnout, were very briefly elaborated on. They were assured of the confidentiality of their answers. They were told to fill in the questionnaires at their home, and then return them to the researcher or a friend of him. A code was written on the questionnaires through which the teachers could be informed of the results of their questionnaires through email. The teachers were given the choice of filling in the questionnaires or returning them as blank to the researcher for whatever reasons they had. From about 160 set of questionnaires given to the participants, only 140 were returned. 15 sets were also discarded because of poor quality.

Data Analysis

The statistical tests used in order to answer the research question were Pearson product moment correlation coefficient, MANOVA and multiple regressions. The Pearson correlation coefficient was used to determine whether there was any significant relationship between emotional intelligence and burnout among teachers. After the correlation coefficients were calculated, multiple regressions were carried out to see if any subscales of emotional intelligence would predict any components of

teacher burnout. MANOVA was also calculated to determine the difference between moderately and highly experienced teachers in their EI and burnout.

Results

On the relationship between EI and burnout

In order to see whether there is a relationship between emotional intelligence and components of burnout among teachers, a Pearson product moment correlation coefficient was first calculated. The significance levels were put at .05 level. The results of this analysis (See Table 2) reveal that there is a significant relationship between emotional intelligence and two components of burnout, EE and PA (the correlation between EI subscales and burnout subscales are also included in the table).

Table 2
Correlation between EI and Burnout

		EE	DEP	PA
EI	Pearson Correlation	-.181*	-.158	-.304**
	Sig. (2-tailed)	.044	.079	.001
	N	125	125	125
	Appraisal	-.088	-.198*	-.283**
	Sig. (2-tailed)	.330	.027	.001
	Regulation	-.259**	-.123	-.316**
	Sig. (2-tailed)	.004	.172	.000
	Utilization	-.253**	-.165	-.053
	Sig. (2-tailed)	.004	.066	.554

In this part two stepwise multiple regressions were performed to see how much of the variability in the three components of burnout is accounted for by the two subscales of emotional intelligence being significant in the afore-mentioned correlation analysis. Before doing

multiple regression, one should check for its assumptions. In this study, assumptions such as multi-collinearity, normality, and linearity were checked for and the results showed that we can go on with multiple regression. In the first regression, the analysis is done so as to see the amount of variance the three components of emotional intelligence explain in the dependant variable of emotional exhaustion. The analysis is a stepwise one which comes up only with one model. In this model Utilization of emotions, the predictor variable, accounts for a significant amount of variance in the dependant variable, EE ($t = -3.04$, $P < .005$)(See Tables 3 and 4). About 7% of the variance in EE is explained by the predictor variable.

Table 3
Model Summary for Emotional Exhaustion

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.264(a)	.070	.062	.413

Table 4
Coefficients for Emotional Exhaustion

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		b	Std. Error	beta		
1	Constant	3.457	.256		13.491	.000
	Utilization	-.037	.012	-.264	-3.041	.003

The second stepwise regression was calculated to predict lack of Personal Accomplishment by the subscales of emotional intelligence, Appraisal, Utilization, and Regulation of Emotions. The results show that all three subscales of EI are significant predictors of PA: Appraisal ($t = -4.18$, $P < .0001$), Regulation ($t = -2.05$, $P < .05$) and Utilization ($t = 3.17$, $P < .0005$) (See Tables 5 and 6). The value of R² of the best-fitting model shows that about 22% of the variance in personal accomplishment could

be explained by the regression model with appraisal, regulation, and utilization as predictors, with regulation as the strongest predictor.

Table 5
Model Summary for Personal Accomplishment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.353(a)	.125	.118	.382
2	.393(b)	.154	.140	.377
3	.468(c)	.219	.200	.364

Table 6
Coefficients for Personal Accomplishment

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	Constant	3.643	.215		16.964	.000
	Appraisal	-.024	.006	-.353	-4.186	.000
2	Constant	3.997	.273		14.645	.000
	Appraisal	-.016	.007	-.238	-2.380	.019
	Regulation	-.013	.006	-.206	-2.059	.042
3	Constant	3.767	.273		13.797	.000
	Appraisal	-.021	.007	-.319	-3.191	.002
	Regulation	-.024	.007	-.366	-3.358	.001
	Utilization	.044	.014	.333	3.170	.002

The role of experience among high school teachers

In order to determine whether moderately experienced and highly experienced teachers differ significantly in their EI and burnout, two MANOVAs were performed. A one-way between groups multivariate analysis of variance was performed to investigate experience differences in EI. Three dependent variables were used: appraisal, regulation and utilization of emotions. The independent variable was experience. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. There was a statistically significant difference between moderately experienced and highly experienced high school teachers on the combined dependent variable: $F(3, 121)=3.36$, $\xi=.021$; Wilks' Lambda=.93; partial eta squared = .07. When the results for the dependent variables were considered separately, the only difference to reach statistical significance using a Bonferroni adjusted alpha level of .017, were appraisal and utilization of emotions: $F(1, 123)=7.60$, $p=.007$, partial eta squared=.05, and $F(1, 123)=7.43$, $p=.007$, partial eta squared=.05 accordingly. An inspection of the mean scores indicated that highly experienced teachers reported slightly higher levels of EI than moderately experienced teachers (see Appendix 1 for the related tables).

Another MANOVA procedure was used to examine experience differences in burnout and its components. Preliminary assumption testing was also conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. The results of the analysis revealed that there was not a statistically significant difference between moderately experienced and highly experienced high school teachers on the combined dependent variable, burnout and its components, $F(3, 121)=1.22$, $\xi=.305$; Wilks' Lambda=.98; partial eta squared = .02. Although the values were not practical enough to reject the null hypothesis of no difference between moderately and highly experienced teachers in

their burnout, a close look at the mean scores indicated that moderately experienced teachers reported slightly higher levels of burnout than highly experienced teachers (see Appendix 2 for the related tables).

Discussion and Conclusion

The negative relationship between EI and subscales of burnout suggests that teachers with high levels of emotional intelligence may harbor lower levels of burnout; of course this is not a causal claim. One may think that appraisal and perception of how you and others feel can be associated with increased feelings of competence and self-efficacy to handle various person-environment relationships, thus prevent teachers from being emotionally exhausted. To the same extent, low levels of utilization of emotions could result in not dealing adaptively with a situation. To the extent that this happens frequently, a person could come to believe that he/she has no control over events in the classroom (Gohm et al. 2005). This may lead to higher levels of emotional exhaustion since the teacher feels he/she is controlled by external events, thus he/she becomes emotionally drained and depleted.

The results of the study also revealed that appraisal, utilization and regulation of emotions accounted for a significant amount of variability in PA subscale of burnout. It is clear that when teachers are not able to assess and appraise what and how others feel in the classroom may lead to a reduced sense of personal accomplishment or lower self-efficacy. The reason is that teachers cannot understand the genuine feelings of the students and this may give the feeling that they are no longer successful in their career and their responsibilities with parents and students. When teachers are not able to regulate their emotions or facilitate the kind of thinking most beneficial for the situation, this may lead to the worst dealing with the situation and to lower feelings of control, thus much stress. This inadequacy in the regulation of emotions may lead teachers to undergo undue amount of stress and pressure, hence make them think they are useless and unsuccessful in their career.

Studies investigating teachers' years of teaching experience as a factor relating to both burnout and emotional intelligence have been largely inconsistent across different communities and cultures. Lau et al (2005) observed that the youngest age group was significantly more burned out than their older colleagues (in Grayson and Alvarez, 2008; Maslach, 1986; Grayson & Alvarez, 2008; Chan, 2007). Anderson and Iwanicki (1984) observed significantly lower levels of perceived personal accomplishment in teachers with teaching experience of 13-24 years. As far as EI is concerned some scholars like Bar on and Parker (2000), Mayer, Salovey, & Caruso (2000), and Mayer & Salovey (1997) believe that EI is a developing ability improving with age and experience from childhood to adulthood. However this also was not observed in most of the studies and the relationship between EI and experience has remained sparse so far.

As regards the role of experience in the difference between moderately and highly experienced teachers, two subscales of EI, appraisal and utilization of emotions, turned out to be different between moderately experienced and highly experienced teachers. The findings are consistent with those in literature that EI develops with age and experience. Thus, simply put, the higher the teachers' experience the higher their emotional intelligence.

Pedagogical implications

There has been a controversy over the construct of emotional intelligence during the last decade. There have been no clear-cut definitions of the concept proposed so far. Thus, the current study can add to the literature on EI. Simply put, the study can further validate emotional intelligence relationship to teachers' success in schools and their psychological well-being. This is highly important since the way teachers behave in their classrooms and the impact of teachers on students' lives, social development, and classroom performance is of great moment. This study has another promising perspective in that its findings can be useful for predicting and even preventing burnout among teachers. Knowing

about the way teachers understand, regulate, and utilize emotions in their classrooms can give us fruitful insights on the process of burnout. The findings of this study can be useful if we want to help teachers develop and improve their emotional intelligence so as to combat burnout, given that there have been connections recognized between the two constructs in this study. The present study can, therefore, help researchers and teacher educators recognize when the teachers are to undergo burnout in their classes.

Limitations of the study

As an ex post facto study, this study focused on the relationships between the variables, and did not address causal factors. The sample group is a mixed one; a convenience sample of teachers, and therefore results of the study cannot be applied to other areas-only suggested. The study was intended to make use of both highly and moderately experienced teachers to the same degree, but due to some reasons, the researcher could not find as many moderately experienced teachers as it was supposed to be. The question of whether teachers of different disciplines at school had different levels of burnout, stress and EI or not was not also addressed in this study.

Additionally, both instruments, the Farsi Emotional Intelligence Scale-41 and the Farsi Maslach Burnout Inventory, are self-report instruments. The possibility of participant bias may be seen as another limiting factor in this study. Other predictor variables outside the focus of this study were not explored. The results are only generalizable to the Farsi Emotional Intelligence Scale-41 and the Maslach Burnout Inventory, only suggested.

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