The Effect of Perceived Stress Dimensions on Self-Efficacy and Job Burnout of Public School Teachers

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ABSTRACT
The aim of this study is to investigate the effects of dimensions of perceived stress levels on teachers’ perceived self-efficacy and burn-out. A total of 301 elementary, middle and high public-school teachers were selected randomly as participants in this research. Data were collected by using the Perceived Stress Scale, Teachers’ Sense of Efficacy Scale (TSES) and Maslach Burnout Inventory for educators. In result of analyzing data it is determined that all included opinions extent of teachers’ perceived stress/discomfort scale is medium, insufficient self-efficacy stress scale is low, self-efficacy scale is medium and job burnout scale is low levels. The results revealed that perceived stress dimensions were significantly correlated with self-efficacy and job burnout. There was a negative and meaningful relationship between perceived insufficient self-efficacy sense and self-efficacy and a positive and meaningful relationship between perceived insufficient self-efficacy sense and job burnout. In addition, there was a negative and meaningful relationship between perceived stress / discomfort and self-efficacy and a positive and meaningful relationship between perceived stress / discomfort and job burnout. Finally, structural equation modeling indicated that there was a negative and meaningful relationship between self-efficacy and job burnout.

Keywords: stress, self-efficacy, job burnout

INTRODUCTION
Stress occurs when the borders of the organism are forced and threatened physically and mentally. Negative situations arise such as the loss of organizational and individual effectiveness when the stress cannot be effectively coped with (Baltaş ve Baltaş, 2008). The teaching profession is seen as one of the professions experiencing intense stress (Arikewuyo, 2004; Aslan ve Çeçen, 2007; Chan, 2003; Stoebber ve Rennert, 2008). As a result of this stress, teachers are faced with unhappy situations such as anxiety, tension, anger, and depression when performing their profession (Kyriacou, 2001). Negative relationships with colleagues, parents, principal and crowded classes may cause teachers to feel stress (Dick ve Wagner, 2001). If teachers feel that they won’t be able to cope with this stress successfully then they give a reaction which is called job burnout. After a prolonged experience of stress people are emotionally exhausted and they display a negative attitude and a negative behavior. This refers to a job burnout. (Yu, et. al.,2015, p.702). Leiter (1993) defined burn-out as “a crisis of self-efficacy”. From this acquaintance self-efficacy is critical in sende of burn-out. Self-efficacy is defined as an individual’s belief in one's capability to perform specific behaviors required for the achievement of a specific objective (Duffy and Lent, 2009). Studies have shown that teachers who have low self-efficacy level reported higher levels of job burnout. If teachers
think that they are poor in establishing discipline in the classroom and have a low management capacity they feel higher levels of job burnout as opposed to the teachers compared to teachers thinking that they have a higher management capacity and establish disciplined classrooms (Chwalisz et al., 1992; Friedman and Farber, 1992). In this study it is investigated that the relationship between four variables. These are perceived stress dimensions (insufficient self-efficacy sense and stress / discomfort sense), self-efficacy and job burnout.

**LITERATURE REVIEW**

**Perceived Stress**

Everyone experiences stress in some form and in some conditions at sometime. “Complete freedom from stress is death” said one of the expert. When we think of stress we generally bring negative thoughts in our mind, but not all stress is bad. Some forms of stress is beneficial, functional and even pleasurable and stress sometimes stimulates academic growth and personal development. On the other hand, some forms of stress can damage your health and be life-threatening. Cohen et al. (1983, p.394), specifically states that stress is a unique concept to all people. Each person can define stress according to his / her life differently. The definition of the stress is “the degree to which situations in one’s life are appraised as stressful”. Actually, stress is defined as “patterned unconscious mobilization of internal energy resources that occur when a person is confronted with a stressor, or that condition that causes stress” by Quick et al. (1986). In addition, stress is defined by Baron and Byrne (1997) as “the response to physical or psychological events perceived by the individual as potentially causing harm or emotional distress” (Arikewuyo, 2004, p.195-196). Stress can be two types of symptoms, internal and external. According to Riches (1994), internal symptoms include symptoms such as asthma, pessimism, or having headache, whereas external symptoms are throwing something, furiously shout, and cry statements (Arikewuyo, 2004, p.196). It is revealed in the literature that the teaching as a profession can be stressful in the negative sense (Guglielmi & Tatrow, 1998; Richards, 2012; Stoeber & Rennert, 2008) and teaching is a highly stressful profession (Chan, 1998). Because teachers are pedagogues as well as citizens of the country, parents, marriage partners, home-owners, etc. This means that they experience multiple stressors in their lives (Arikewuyo, 2004, p.196).

Teachers are considered to be more stressful than other occupational groups. The main sources of teacher stress are disciplinary problems of students, overcrowded classes, over-bureaucratic work, insufficient self-esteem and salary, difficulties in promotion, being evaluated by other people, conflict with colleagues, director and the lack of support from administrators, reluctant to another school, non-supportive parents, lack of career opportunities, inappropriate physical conditions (Balaban, 2000, p.189; Kyriacou, 2001, p.29). These sources are general, but they can be change person to person, school to school or country to country. It is important to be aware of the difference between personalities and conditions of schools and characteristics of national educational systems (Kyriacou, 2001, p.30). If teachers have problems in coping with these stress sources it will have many negative consequences such as more anxiety and depression (Arikewuyo, 2004, p.196).

**Self-Efficacy**

Self-efficacy is defined as “people’s beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives”. Self efficacy beliefs determine people feelings, thoughts, behaviors and how they motivate themselves. People who have a sense of strong efficacy are accomplished and peaceful in many ways. People trust in their capabilities see difficult tasks as challenges to be mastered not threats to be avoided. These kinds of people heighten and sustain their efforts in the face of failure (Bandura, 1994, s.
2). On the other hand if people don’t believe their capacity and ability during doing their jobs give up something quickly, do not make much effort to succeed and have experience anxiety which causes stress and burnout (Gibson & Dembo, 1984). Teacher self-efficacy is: “the teacher’s belief in his or her capability to organize and execute lessons required to successfully accomplishing a specific teaching task in a particular context” (Tschanen-Moran, Hoy, & Hoy, 1998). Studies on teacher efficacy have provided evidence of that self-efficacy of teachers can have a significant influence on student achievement and motivation as well as on instructional practices and classroom behaviors (Goddard, Hoy, & Hoy, 2004). Ross (1994, p. 345) analyzed teachers who have higher levels of self-efficacy and it is found that these teachers are willing to learn and use new teaching strategies, use classroom management techniques that increase student motivation, give special support to students who are below average and whose success is lower than the others, ensure that students analyze their academic skills well, set attainable goals, and persist in the face of student failure. (Wossenie, 2014, s. 215).

**Job Burnout**

The verb “burn out” is defined as “to fail, wear out, or become exhausted by making excessive demands on energy, strength, or resources” in the dictionary (Freudenberger, 1974, p. 159). Generally job burnout occurs when the individuals cannot successfully cope with work pressure. Under this condition they get emotionally and as attitudinal exhausted and their negative behaviours arise from a prolonged experience of stress. Job burnout mostly seen in people who are working in helping professions such as nurses and teachers (Chiron et al.2010; Maslach et al.2001). Previous studies showed that teachers are such professionals that face the greatest amount of stress in their work life when they are compared to the other professionals (Abenavoli et al, 2013; Carson et al, 2010; Kyriacou, 2001; Troman and Woods, 2000). They feel stress and are burn-out because the salaries are not economically adequate, inadequacies in teacher education, high number of students in classrooms, the difficulties teachers face in maintaining discipline, inadequacy of resources and materials, inadequacies in the curriculum or lack of leadership skills teachers (Sari,2000). This kind of stress make the teachers experience various adverse reactions. These reactions may be psychological (anxiety and depression), physiological (headache, tachycardia, excessive stress, and hypertension), or behavioral (alcoholism, smoking, lifestyle, and sleep problems) (Friedman-Krauss et al. 2014; Roeser et al. 2013; Torsheim and Wold 2001). Burnout occurs with the combination of three dimensions. These are feelings of emotional exhaustion, depersonalization, and a sense of lack of personal accomplishment (Hastings et al., 2004). If workers feel that they are no longer able to give of themselves at a psychological level it means that they are emotionally exhausted (Maslach & Jackson, 1981, p. 99). Second dimension is the the depersonalization and it is defined as negative perception of the person to other people who are in contact for some reason. Third dimension is the personal accomplishment and it includes a person’s negative self-evaluation regarding to his or her job performance (Schaufeli, Maslach & Marek, 1993, p. 17).

**METHOD**

**Participants and Procedure**

The universe of the research is composed of teachers working in public schools in Istanbul. In this phase, a total of 301 public school teachers selected through simple unselected sampling have participated in the research. 72% (217) of the participants were female and 28% (84) of the participants were male. 103 (34%) of participants were teachers of primary schools, 153 (51%) of participants were teachers of middle schools and 45(15%) of participants were teachers of high schools. Regarding years of teaching experience, 17% (51) of the participants had zero to five years of experience, 19% (56) had from six to ten years, 20% (59) had from eleven to fifteen years, 45% (135) had more than fifteen years.
Measures

Perceived Stress
One of the scales used in the research is the perceived stress scale. The Perceived Stress Scale (PSS) was developed by Cohen, Kamarck and Mermelstein (1983). A total of 14 items are designed to measure how one is perceived the stress in his/her life. Seven of the items measures the participants’ inadequate self-efficacy perceptions whereas seven of the items measures the participants’ stress/discomfort perceptions. Participants were asked to rate each item as a 5-point Likert, ranging from "Never (1)" to "Very often (5)" type on the scale. Seven items with positive expressions is scored reversely (Eskin, vd., 2013). In this study, the Cronbach alpha coefficient for the scale of insufficient self efficiency sense of teachers was 0.85; stress/discomfort sense extent of teachers’ perceived stress scale was 0.90 and for Perceived stress Scale as a whole was 0.84.

Self-Efficacy
Teachers’ Sense of Efficacy Scale (TSES) consists of twenty-four items assessing self-beliefs about efficacy for student engagement, efficacy for instructional strategies, and efficacy for classroom management. Respondents rate their agreement with each item on a 5-point scale (from 1= Inadequate to 5= Very adequate) (Çapa, Çakıroğlu ve Sarıkaya, 2005). In the present study, the Cronbach alpha coefficient for the efficacy for student engagement was 0.92; efficacy for instructional strategies was 0.84; efficacy for classroom management was 0.86 and the TSES was 0.93.

Job Burnout
The teachers’ burn-out was measured with the Maslach Burnout Inventory for Educators (İnce & Şahin, 2015). The Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1996) was applied for assessing the three burnout dimensions. Emotional exhaustion was assessed with nine items and, depersonalisation was assessed with five items. Personal accomplishment which is the third dimension was assessed with eight items. In the current study, Cronbach’s 𝛼 of the emotional exhaustion was 0.89; personal accomplishment was 0.74; depersonalisation was 0.75 and burn-out scale as a whole was 0.89.

RESULTS

Table 1 represents descriptive statistics of teachers’ perceived stress (Insufficient Self-Efficacy Sense and Stress/Discomfort Sense) self- efficacy and job burnout and the correlations between these four variables.

Descriptive Statistics
Means, standard deviations, and inter-correlations for all the variables were shown in Table1. The mean of insufficient self- efficiency sense of teachers is 2.44 and SD (standart deviation) is 0.68; which is below the average. Mean of stress/discomfort sense is 2.88 and SD =0.68. Teachers feel less insufficient self- efficiency sense than stress/discomfort sense. Teachers' self-efficiency is about on average with a mean of 3.88 and SD=0.46. Lastly, mean of job burn-out of teachers is 2.41, SD= 0.61; and it is below the average. In addition, the results indicated that insufficient self- efficiency sense was positively correlated with stress/discomfort sense and job burn-out; whereas negatively correlated with self-efficiency. Stress/discomfort sense was also positively correlated with insufficient self- efficiency sense and job burn-out; whereas negatively correlated with self-efficiency. In addition, self-efficacy and job burnout were negatively correlated.
Table 1. Means, standart deviations and correlations of the latent variables in this study

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Insufficient Self- Efficiency Sense</th>
<th>Stress/ Discomfort Sense</th>
<th>Self-Efficiency Sense</th>
<th>Job Burn-Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient Self- Efficiency Sense</td>
<td>2.44</td>
<td>0.68</td>
<td>1</td>
<td>0.16**</td>
<td>-0.38**</td>
<td>0.44**</td>
</tr>
<tr>
<td>Stress/ Discomfort Sense</td>
<td>2.86</td>
<td>0.68</td>
<td>0.16**</td>
<td>1</td>
<td>-0.29**</td>
<td>0.47**</td>
</tr>
<tr>
<td>Self-Efficiency Sense</td>
<td>3.88</td>
<td>0.46</td>
<td>-0.38**</td>
<td>-0.29**</td>
<td>1</td>
<td>-0.49**</td>
</tr>
<tr>
<td>Job Burn-Out</td>
<td>2.41</td>
<td>0.61</td>
<td>0.44**</td>
<td>0.47**</td>
<td>-0.49**</td>
<td>1</td>
</tr>
</tbody>
</table>

**p<0.01

Measurement Model

The measurement model included four latent variables (Insufficient Self- Efficiency Sense, Stress/Discomfort Sense, Self-Efficiency and Job Burn-Out) and twenty observed variables. Structural equation modeling was used to analyze the data. Evaluating the goodness of fit of the model four indices were utilized. These are: Chi square statistic ($X^2$); $X^2/df$, the standardized root mean square residual (SRMR), the root mean square error of approximation (RMSEA), and the comparative fit index (CFI) (Hu and Bentler 1999). In this study, a model was considered to have a good fit if all the path coefficients were significant at the level of 0.01, $X^2/df$ was below 3, SRMR was below 0.10, RMSEA was below 0.08, and CFI was 0.90 or more. A confirmatory factor analysis was conducted if the measurement model fit the sample data adequately or not. The test of the measurement model was satisfactorily fit to the data. Fit indices revealed good model: $X^2$ (160, N=301) = 388.284; $X^2 / df$ = 2.427; RMSEA=0.069 and CFI= 0.925. Confirmatory factor analysis of hypothesized model is shown in Table 2.

Table 2. Confirmatory Factor Analysis of Hypothesized Model

<table>
<thead>
<tr>
<th>Model</th>
<th>$X^2/ df$</th>
<th>SRMR</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesized Model</td>
<td>2.427</td>
<td>0.08</td>
<td>0.925</td>
<td>0.069</td>
</tr>
<tr>
<td>N=301</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

As is shown in Figure 1, insufficient self- efficacy sense negatively predicted self- efficacy ($\beta = -0.38; p<0.01$) and positively predicted job burn-out ($\beta = 0.29; p<0.01$). Stress/Discomfort sense negatively predicted self- efficacy ($\beta = -0.26; p<0.01$) and positively predicted job burn-out ($\beta = 0.46; p<0.01$). Furthermore, self- efficacy has a negative and significant effect on job burn-out ($\beta = -0.25; p<0.01$).
Figure 4. Model of relationship among insufficient sel-effcacy sense, stress/discomfort sense, self efficacy and job burn-out Note: Standardized regression weights reported. **p<0,01

DISCUSSION
In this study we determined the relationship between perceived stress dimensions (insufficient self-efficacy sense and stress/distress sense), self-efficacy and burn-out. The data obtained from 301 teachers working in public schools in Istanbul. It is revealed that teachers’ stress/distress sense and self-efficacy perceptions were at medium level, whereas teachers’ insufficient self-efficacy sense and job burnout perceptions were at a low level. We found that teachers who are faced with a greater level of stress in their daily life, they tend to develop lower self-efficacy and feel burn-out. Additionally, self-efficacy is negatively related to the teacher job burn-out. There are some similar studies with our study. Brissie et al. (1988) found that the job burnout level of teachers is a consequence of self-efficacy (Evers et al.2002). Glickman and Tamashiro (1982) found that teachers who have low self-efficacy level could feel a higher degree of job burnout and were most likely to retire or leave the teaching. Teachers’ beliefs that they have the capability to complete their teaching task and to teach their students well is called self-efficacy. This is also something like a judgement of teachers toward the teaching and learning relationship, their role in the development of their students, and other issues. If teachers evaluate themselves negatively toward their job skills, then they perceive their schools as a dissatisfied place of work, failure in the coping style, and to feel greater degrees of stress and job burnout (Yu, et. al.,2015). In order to increase their self- efficacy levels in- service trainings can be given about maintaining discipline in the classroom, instructional strategies, effective relationships with students to teachers and teachers to collegues and principals. On the other hand, a career development system for teachers must be applied and active roles in decisions about the education system must be given. In the study of Schwarzer and Hallum (2008), it is found that there was a nagative and meaningful relationship between self-efficacy and job stress and a positive and a meaningful relationship between job stress and burnout. The results are similar to our research findings. The difference is that in our research our one variable is general stress not job stress. Development of a healthy school is important for reducing the teacher stress. Healthy schools should have the following properties below (Kyriacou, 2001, p.31-32):

Communication: The communication level between teachers should be very high.

Collegiality: Collegiality feelings of teachers should be very strong.

Management decisions: participation level of administrative decisions is important.

Key values: There must be a comprehensive consensus on common values and standards between employees and management.

Policies: The policies that should be followed in the school should be determined.
Roles: The roles of teachers and administrators which they are going to exhibit and what expected from them should be clearly defined.

Feedback: Positive feedbacks should be given and appreciate them.

Resources: Teachers should be allocated supportive resources and facilities.

Support: Teachers should be supported to help solve the problems they face.

Easy Procedures: The policies and procedures to be followed must be simple, clear and easily traceable.

Minimized paper work: Bureaucracy and paperwork must be reduced.

Additional duties: The additional duties assigned to the teachers should be in accordance with the skills of the teachers.

Environment: The teachers' physical working environments should be pleasant.

Forward planning: Senior management does good long-term planning.

Career development: Advice is given that will contribute to the development of teachers' careers.

Furthermore, teachers can phone a “helpline” which is being established in UK (TBF, 2000; see also their website at www.teacherline.org.uk). This is funded by the government and teachers are free to telephone when they face a stressful problem. Also, effective teacher stress workshops are necessary to reduce their level of experience of stress. These workshops are mostly focus on helping teachers to develop methods for minimizing the occurrence of sources of stress and effective coping strategies for the teacher stress (Kyriacou, 2001, p.32).

For further studies the model of the present study with three variables can be changed with different antecedents and consequences. For instance, the effects demographic variables and personalities on burn-out can be investigated. Besides this research can be done into other business sectors (eg. health, security) or it can be done on private school and vocational school teachers. In addition to this there may be differences between the academic years and this study can be also done in the years coming and compared to each other. Moreover, there may be intercultural differences and it can be applied to other cultures and they can be compared to each other too. In this study some possible limitations should be specified. Participants in this study work in primary, middle and high schools. Thus, the sample might not be representative of the overall population of Turkish primary, middle and high school teachers. In addition, participants’ self-assessments, common method variance and social desirability limitations must be thought.

References


