Burnout among Turkish Teachers: The Influence of Sleep Quality and Job Satisfaction

Türk Öğretmenlerde Tükenmişlik: Uyku Kalitesi ve Mesleki Doyumun Etkisi

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Anahtar sözcükler: tükenmişlik, iş doyumu, uyku kalitesi, öğretmenler

ABSTRACT: Given the associations between job satisfaction and burnout, it is important to consider relations between job-related stress and sleep quality. Studies have consistently suggested that linkages between sleep problems and job-related stress are significant and have serious consequences on quality of life, work performance and motivation. Teaching is a stressful occupation, and to date possible influences of poor sleep quality on job burnout have received little attention. The aim of this study was to investigate predicting value of poor sleep quality on job burnout. Data were collected from 184 elementary school teachers. The Maschlack Burnout Inventory (MBI), Minnesota Satisfaction Questionnaire (MSQ), and Pittsburgh Sleep Quality Index (PSQI) were administered to volunteers. The linkage between poor sleep quality and job burnout was evaluated by using hierarchical regression analyses after controlling for demographical characteristics of subjects and job satisfaction. School climate, intrinsic job satisfaction, and sleep quality were significant determinants of burnout in school. Findings were discussed in the light of the theoretical considerations about job burnout.

Keywords: burnout, job satisfaction, sleep quality, teachers

1. INTRODUCTION

Burnout is a long lasting response to chronic emotional and psychosocial stressors at work place (Maslach, 2003). The term “burnout” was first suggested and used by Freydberg (1974) to account for the process of experienced emotional depletion, a loss of motivation and commitment. However, burnout research has been expanded by using empirical measures, one of which was developed by Maschlab (1981). The concept of job burnout refers to a psychological syndrome emerging from chronic interpersonal stressors in job and has been conceptualized in three main components. Three key dimensions of the job burnout are emotional exhaustion, feelings of depersonalization or detachment from the job, and lack of accomplishment. The exhaustion component represents the basic personal distress dimension of the construct.

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Depersonalization component refers to the interpersonal dynamics in stress response. Finally, the component of reduced inefficiency represents the self evaluation dimension of burnout (Maslach, Schaufeli, & Leiter, 2001).

Job characteristics such as work overload and time pressure have been consistently found to be associated with job burnout, particularly exhaustion dimension (Sweeney & Summers, 2002). Studies indicated that teaching is a stressful occupation (Borg, Riding, & Falzon, 1991; Boyle, Borg, Falzon, & Baglioni, 1995). Sources of stress commonly reported by teachers are work overload, discipline problems of pupils, lack of chances for promotion, poor working conditions, unsatisfactory relationships with colleagues, and administrative problems (Mathai, Gilmore, Tuck & Adair, 1996; Kyriacou, 2001; Pithers & Soden, 1998; San, 2000). Stress reactions stemming from the work environment have negative consequences on employees, such as low levels of job satisfaction, lack of organizational commitment, decreased productivity and effectiveness (Cordes & Dougherty 1993; Lee & Ashforth 1993; Rohland 2000). However, ramifications of burnout syndrome in teaching occupation are hardly to be understood by individual outcomes per se. Karakelle & Canpolat (2008) demonstrated that negative mood of the distressed teachers resonated to pupils via teaching style and teachers’ building classroom milieu.

A large literature provides strong evidence for that job satisfaction is strictly related to burnout among teaching staff (Guglielmi & Tatrow, 1998; Gürsel, Sünbül, & San, 2002; Sünbül, 2003). Job satisfaction is the main determinant of job tenure (Dawis, 2004). According to the motivation-hygiene theory of Herzberg (1968), two factors play an important role on job motivation. From this view, job aspects concerning satisfaction at work could be classified as motivating or intrinsic factors and hygiene or extrinsic factors. Therefore, job satisfaction has two dimension in the notion: intrinsic satisfaction and extrinsic satisfaction. Intrinsic job satisfaction refers to how employees feel about the nature of the tasks themselves. Extrinsic job satisfaction refers to how employees feel about aspects of the work situation that are external to the job tasks or work itself (Spector, 1997). However, intrinsic job satisfaction seems to be more central to general job satisfaction and to have a more effective value than extrinsic job satisfaction (Bilge, 2006; Çam, 2001; Bilge, Akman, & Kellecioğlu, 2007).

Recognizing the potential role of sleep impairments on job burnout, an increasing number of researchers has become focused on possible effects of sleep impairments on variations related to working conditions. Results have demonstrated that length of work hours and night shifts were significant correlates of job stress and fatigue (Åkerstedt & Landström, 1998; Åkerstedt et al., 2002; Åkerstedt et al., 2004). In a study conducted among white-collar workers suffering from long term leave from their job due to a burnout related diagnosis, recovery from the burnout syndrome was accompanied by improved sleep quality (Ekstedt, Söderström, & Åkerstedt, 2009). However, in the literature, possible connections between sleep quality and job burnout among teachers have received little attention. In a preliminary study among Turkish teachers, results demonstrated and supported the previous findings that sleep quality, particularly impaired subjective sleep quality, predicted teachers’ job burnout (Merey, Boysan, & Ateş, 2009). In this study, our aim was to assess the possible relations between sleep quality and job burnout after eliminating the effects of job dissatisfaction and demographical characteristics of teaching staff.

2. METHOD

2.1. Participants

The sample of elementary school teachers consisted of 57 females (30.98%) and 127 males (69.02%) making up a total of 184 subjects. The majority of the teachers in the sample (N= 136; %73.91) were married. Mean age was 36.13 with a standard deviation of 7.07, and
minimum and maximum ages ranged from 24 to 60. Mean time spent at work place was 29.10 hours/week (SD=5.85) and mean time spent in the current job was 9.68 years (SD=7.15).

2.2. Instruments

2.2.1. Demographical Questionnaire

A demographical questionnaire prepared by the authors was used. Age, gender, marital status, hours spent in school per week, length of time working in the current vocation, and amount of personal income per month were questioned in this form. In the last item personal beliefs about school climate were questioned by asking ‘On the whole, could you please rate it on the scale that being a teacher or teaching to students in your school is as functional enough as you expect when the working environment is taken into account?’ Participants responded about their attitudes on a 5-point scale ranging from 1 (Certainly not at all) to 5 (Absolutely it is). Attitudes of the participants about school climate tried to be assessed by this question.

2.2.2. Maslach Burnout Inventory (MBI)

The instrument was developed by Maslach and Jackson (1986) to assess job distress of employees at work place. The MBI is composed of 22 likert type items and has a three-factor structure. Emotional Exhaustion, Depersonalization and Personal Accomplishment subscales constitute factors of the scale. Inner consistencies of the subscales were 0.90, 0.71, and 0.79 for the subscales, respectively. Validation studies of the Turkish form were conducted by Çam (1992) and Ergin (1992), separately.

2.2.3. Minnesota Satisfaction Questionnaire (MSQ)

The instrument is a popular measure of job satisfaction that was developed by Weiss et al. (1967). The measure consists of 20 items and uses a 5-point Likert type response format. The MSQ can be used to measure two distinct components: intrinsic job satisfaction and extrinsic job satisfaction. Test-retest reliabilities of from 0.70 up to 0.80 were reported (Cook et al., 1981). Cronbach alpha coefficient of the Turkish form was 0.77. Turkish translation was done by Baycan (1985).

2.2.4. Pittsburgh Sleep Quality Index (PSQI)

The instrument was developed by Buysse et al. (1989) to assess individuals’ sleep quality at last month. The PSQI is composed of 19 items rated on a four points scale, ranging from 0 to 3. Higher scores point out to poor sleep quality. Inner consistency of the scale was 0.83 and test retest correlation between two measurements at 28 days time course was r=0.85. The instrument revealed %89.6 sensitivity and %86.5 specificity in discerning sleep disorders (Buysse et al., 1991). The scale has seven components and these components may be benefited from a thorough assessment instead of composite scores. Subscales of the PSQI are Subjective Sleep Quality, Sleep Latency, Sleep Duration, Habitual Sleep Efficiency, Sleep Disturbances, Use of Sleeping Medication, and Daytime Dysfunction. The PSQI was translated into Turkish by Ağargün, Kara, & Anlar (1996).

2.3. Procedure

Subjects were recruited from primary and secondary schools. After brief information was given, teachers’ written consents were obtained prior to the application. The Maslach Burnout Inventory (MBI), the Minnesota Satisfaction Questionnaire (MSQ), and the Pittsburgh Sleep Quality Index (PSQI), and the Demographical Questionnaire Form were administered to the volunteers.
2.4. Data Analysis

Descriptive statistics were used to depict sample characteristics. The predictive value of demographical features, job satisfaction and sleep quality on each dimension of job burnout were evaluated by performing multiple hierarchical regression analyses. Having adjusted for demographical characteristics of the sample, regression beta coefficients for job satisfaction subscales were calculated in Step 2. Finally, in Step 3, the influence of components of sleep quality on each job burnout dimension was evaluated after controlling for demographical characteristics and job satisfaction. p<.05 was significance threshold.

3. RESULTS

As given in Table 1, dependent variables Emotional Exhaustion, Depersonalization, and Personal Accomplishment were regressed on independent variables in three steps. In Step 1, assessing the influence of demographical variables on dimensions of job burnout, three regression analyses were performed. Then, in Step 2, effects of intrinsic and extrinsic job satisfaction on job burnout were entered into analyses while demographical variables were still in the model. In the final step, components of sleep quality were put into the regression models in which the three subscales of burnout were dependent variables. Regressions of all independent variables to subscales of job burnout were conducted while the previous independent variables in the previous two steps were still in the models.

Table 1: Hierarchical Regression Analyses

<table>
<thead>
<tr>
<th>STEP 1</th>
<th>R²=0.17</th>
<th>R²=0.07</th>
<th>R²=0.16</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Emotional Exhaustion</td>
<td>Depersonalization</td>
<td>Personal Accomplishment</td>
</tr>
<tr>
<td>Age</td>
<td>$-0.034$</td>
<td>0.246</td>
<td>4.964**</td>
</tr>
<tr>
<td>Gender</td>
<td>$-2.618^*$</td>
<td>1.031</td>
<td>-0.047</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.968</td>
<td>1.125</td>
<td>-0.202</td>
</tr>
<tr>
<td>Working Hours (Weekly)</td>
<td>-0.100</td>
<td>0.081</td>
<td>-0.059</td>
</tr>
<tr>
<td>Job Tenure</td>
<td>-0.091</td>
<td>0.244</td>
<td>-0.177</td>
</tr>
<tr>
<td>Income</td>
<td>0.005</td>
<td>0.003</td>
<td>0.002</td>
</tr>
<tr>
<td>School Climate</td>
<td>-2.276**</td>
<td>0.546</td>
<td>-0.405</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STEP 2</th>
<th>R²=0.35 ; ΔR²=0.18</th>
<th>R²=0.15 ; ΔR²=0.08</th>
<th>R²=0.24 ; ΔR²=0.08</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Emotional Exhaustion</td>
<td>Depersonalization</td>
<td>Personal Accomplishment</td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td>-4.482**</td>
<td>0.852</td>
<td>10.225**</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td>-1.026</td>
<td>0.540</td>
<td>-0.159</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STEP 3</th>
<th>R²=0.40 ; ΔR²=0.05</th>
<th>R²=0.26 ; ΔR²=0.11</th>
<th>R²=0.30 ; ΔR²=0.06</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Emotional Exhaustion</td>
<td>Depersonalization</td>
<td>Personal Accomplishment</td>
</tr>
<tr>
<td>Subjective Sleep</td>
<td>1.514*</td>
<td>0.714</td>
<td>5.045**</td>
</tr>
</tbody>
</table>
In the regression analyses, males were found emotionally more exhausted than females ($\beta = -2.618, p<.05$). Participants who scored higher satisfaction about institutional environment reported lower exhaustion ($\beta = -2.276, p<.01$) and higher personal accomplishment ($\beta = 1.614, p<.01$). However, demographical characteristics were not significantly associated with depersonalization. In Step 2, effects of job satisfaction on burnout subscales were evaluated after the variances explained by demographical variables were adjusted. Only intrinsic aspects of job satisfaction were significant but inverse correlates of emotional exhaustion and depersonalization ($\beta = -4.482, p<.01; \beta = -1.515, p<.01$, respectively). On the contrary, a sense of personal accomplishment was positively predicted by intrinsic job satisfaction ($\beta = 2.726, p<.01$). In Step 3, partial beta coefficients were calculated for independent variables including seven components of sleep quality after controlling for the effects of job satisfaction and demographical characteristics variable sets. Subjective sleep quality and habitual sleep efficiency were significant determinants of emotional exhaustion ($\beta = 1.514, p<.05; \beta = -1.908, p<.05$, respectively). On the contrary, sleep duration negatively linked to exhaustion at work ($\beta = -1.566, p<.05$). Subjective sleep quality and daytime dysfunction were significant correlates of depersonalization ($\beta = 0.795, p<.05; \beta = 1.022, p<.05$, respectively). Associations of personal accomplishment with components of sleep quality were not significant.

### 4. DISCUSSION AND CONCLUSION

Burnout syndrome is a common problem at work places and has serious costs due to demoralization, alienation and fatigue among employees (Maslach & Leiter, 1997). Teaching is a stressful occupation that job satisfaction and burnout of teaching staff are widely focused by researchers (Guglielmi & Tatrow, 1998; Gürsel, Sünbül, & Sari, 2002; Aydogan, Doğan, & Bayram, 2009). However, although sleep is a central factor in stress response and emotional regulation; the literature has become growth in recent years about the connections between job stress and sleep related matters such as possible influences of sleep/wake cycle or sleep quality and their effects on job stress (Akerstedt et al., 2002; 2004; Knudson, Ducharme, & Roman, 2007; Doi, 2005). Despite the growing recognition of the consequences of poor sleep, job
specific research on sleep characteristics among teachers have received little attention. In this study, our aim was to investigate the relations between sleep quality, job satisfaction and job burnout among Turkish teachers.

As given in the results, gender was an important predictor of exhaustion and male teachers reported higher emotional exhaustion compared to female teachers. Our finding was incompatible with the previous research among Turkish teachers (Gürsel, Sünbül, & Sari, 2002). However, in a survey conducted in U.S. on job satisfaction among over 36,000 elementary and secondary school teachers, female teachers reported higher job satisfaction than male teachers (Perie & David, 1997). In addition, Başol and Altay (2009) found significant linkages between gender and all dimensions of burnout. Few research in Turkey considering associations between gender and burnout among teachers has reported equivocal results. Further studies are needed in Turkey. Personal and job characteristics were not obvious determinants of depersonalization in the sample. In another aspect, school environment was found to be an important determinant of job satisfaction and burnout (Friedman, 1991; Grayson & Alvarez, 2008). Compatible with the theoretical and empirical frame of job stress, our results demonstrated that positive appraisals of participants about school environment was negatively correlated with emotional exhaustion and positively correlated with personal accomplishment. Regarding to this finding, relations between school environment and burnout could be thought reciprocally that levels of burnout might also affect personal beliefs about school climate. Our results regarding to significant linkages between school climate and burnout should be reconsidered in further studies with longitudinal research design.

Over the past two decades, several models have been developed to understand the mechanisms underlying job stress (Kompier & Di Martino, 1995; Karasek & Theorell, 1990). These models were criticized because of their simplicity, overlooking the interactional nature of working milieu, and not integrating personal demands of learning and personal growth in their approach (Kristensen, 1995; de Jonge & Kompier, 1997). By contrary, Herzberg’s two-factor model provides a useful basis in explaining personal dynamics pertaining to job satisfaction. Empirical studies have provided strong evidence that intrinsic factors are central to job satisfaction and deter from burnout (Bilge, 2006; Çam, 2001; Bilge, Akman, & Kellecioğlu, 2007). Consistent with the previous findings, we found that intrinsic job satisfaction was negative predictor of emotional exhaustion and depersonalization, as well as positive correlate of personal accomplishment. However, we could not find any linkages between burnout and extrinsic job satisfaction among Turkish teachers.

There is a growing literature on the associations between stressful working conditions and sleep problems (Akerstedt, Knutsson et al., 2002; Jacquinet-Salord, Lang, Fouriaud, Nicoulet, & Bingham, 1993; Kalimo, Tenkanen, Harma, Poppius, & Heinsalmi, 2000; Nakata et al., 2004). These studies have consistently reported negative consequences of work stressors on sleep. On the other hand, both sides of the issue should be taken into account that sleep problems are likely to have serious job-related stress outcomes as well (Doi, Monowa, & Tango, 2003; Doi, 2005, Merey, Boysan, & Ateş, 2009). Considering our findings, subjective sleep quality was significantly associated with both emotional exhaustion and depersonalization. The proportion of hours slept in the number of hours spent in the bed was gauged with the habitual sleep efficiency subscale of the PSQI. Impairments in habitual sleep efficiency was a significant predictor of emotional exhaustion at work. In contrast, linkage of sleep duration to emotional exhaustion was negative. In other words, participants suffering from emotional exhaustion at work were more prone to spend longer hours in sleep. Daytime sleepiness or hypersomnia concerning job burnout might be associated with depression. Further studies are needed. Daytime dysfunction due to sleep problems significantly linked to depersonalization. Findings were generally in agreement with the previous results. Decreased sleep duration means increased wakefulness which may be related to regulation of emotions in resisting feelings of helplessness and hopeless (Rotenberg,
2003). It seems that the duration of sleep may be a coping strategy to deal with negative emotions in relation job stress. In general, the results suggest that sleep is an important factor on job burnout even after controlling for demographical characteristics of subjects and work related satisfaction.

In this study we concluded that school climate is an important factor playing role on job burnout and needs further attention considering its associations with job burnout among teachers. Second, intrinsic motivation explained a considerable part of variation in all dimensions of job burnout including emotional, interpersonal and performance components of the construct. Finally, it seems that sleep problems should be seriously taken into consideration among teaching staff. Sleep quality, particularly subjective sleep quality, seems to be a significant antecedent of emotional exhaustion and depersonalization at work place among teachers. Further studies are needed in order to unpack the underlying mechanisms of job distress to deal with job burnout in schools.

5. REFERENCES


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**Genişletilmiş Özet**


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değerlendirmelerini içerir. Dişsal iş doyumu ise icra edilen işin dışında yer alıyor daha çok moddaki getirilere ilişkin özelliklerdir (Spector, 1997). Bununla beraber, eğitmenler için içsel iş doyumu genel iş doyumuna göre daha fazla önem taşımaktadır ve genel iş doyumunun daha önemli bir belirleyici olarak etkili olmaktadır (Bilge, Çam, 2001; Bilge, Akman ve Kellecioğlu, 2007).


Öğretmenlerin olusturduğu çalışma grubu 57 kadın (30.98%) ve 127 erkek (69.02%) olmak üzere 184 katılmaktadır. Çalışma grupundaki öğretmenlerin büyük çoğunluğu evliydirlidir (N= 136; %73.91). Grubun yaş ortalaması 36.13 (SS = 7.07), en düşük ve en yüksek yaş 24 ve 60 arasında değişmektedir. İş yerinde haftalık çevreli oturuma çalışma saati 29.10 (SD=5.85) ve çalışılan okulda çevreli oturuma çalışma yılı 9.68 (SD=7.15). Araştırmaya konusunda özel bir bilgilendirme yapıldıkten sonra katılmcılarnın yazılı izinleri alınmıştır. Sonrasında gönülülerle Maslach Tükenme Ölçüğü (MTÖ), Minnesota İş Doymu Ölçüğü (MIDÖ), Pittsburgh Uyku Kalitesi İndeksi (PUKİ) ve Demografik Soru Formu (DSF) uygulanmıştır.

Çalışma grubunun özellikleri değerlendirilebilir için tanımlayıcı istatistikler kullanılmıştır. Demografik özellikler, iş doyumu ve uyku kalitesinin işteki tüketme alışkanlığı etkisi çoklu bir hıysarsız regresyon analizlerile değerlendirilmiştir. İlk aşamada demografik özellikler bağımsız değişken olarak alınmıştır. İkinci aşamada iş doyumunun tüketme alışkanlıklarını bulabilirmek için demografik özelliklerin etkisi sabitlendikten sonra beta katsayıları hesaplanmıştır. Son olarak, üçüncü aşamada, uyku kalitesi alt ölçeklerin işteki tüketme alışkanlıkları alt boyutları üzerine etkisi, bağımsız değişken olarak iş doyumu ve demografik özellikler kontrol edildiği halde değerlendirilmiştir.


Araştırmalar özel iş doyumunun işteki memnuniyetin çekirdeğinde yer aldığı ve mesleki tüketme alışkanlıkların korunmuştur göstermektedir (Bilge, 2006; Çam, 2001; Bilge, Akman, ve Kellecioğlu, 2007). Öncelikle bulgarlarla uyuşmu olarak bu çalışmada da işçel iş doyumu, diyetusal tüketme ve depersonalizasyonun ters yönde belirleyici olduğu kader, kişisel başarı hissi de artırıcı bir etken olduğu sonucuna varılmıştır. Buna karşın öğretmenlerde dışsal iş doyumunun işteki tüketme alışkanlıklarla olabilecek bir ilişkisi bulunamamıştır.


Citation Information