

Mediating Role of Self Efficacy on the Relationship between Subjective Vitality and School Burnout in Turkish Adolescents

(Ergenlerde Okul Tükenmişliği ve Öznel Zindelik Arasındaki İlişkide Öz-yeterliliğin Aracı Rolü)

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Abstract

The purpose of this paper was to examine whether self efficacy might play a mediating role between subjective vitality and school burnout in Turkish adolescents. The participants were 344 high school students who completed a questionnaire package that included the School Burnout Scale, the Subjective Vitality Scale, and the General Self-Efficacy Scale. Relationships between self efficacy, vitality and school burnout were tested using Pearson Product Moment Correlation Coefficient and predictions of each variable by the domains of the other were calculated with Linear Regression Analysis (LRA). Findings showed that subjective vitality, school burnout and self-efficacy were related to each others. Hierarchical Regression Analysis results indicated that self-efficacy partially mediated the relationship between subjective vitality and school burnout.

Keywords: Self-efficacy; burnout; vitality

Özet

Bu çalışmanın amacı ergenlerde okul tükenmişliği ile öznel zindelik arasında öz-yeterliliğin aracı rolünü incelemektir. Araştırmanın çalışma grubunu 344 lise öğrencisi oluşturmakta olup; Okul Tükenmişliği Ölçeği, Öznel Zindelik Ölçeği ve Genel Öz-yeterlilik Ölçeği veri toplama aracı olarak kullanılmıştır. Öz-yeterlilik, okul tükenmişliği ve öznel zindelik arasındaki ilişkileri saptamak için Pearson momentler çarpımı korelasyon analizi, öz-yeterliliğin, öznel zindelik ve okul tükenmişliği arasındaki aracı rolünü incelemek için Lineer regresyon analizi kullanılmıştır. Araştırma bulgularına göre öz-yeterlilik, öznel zindelik ve okul tükenmişliği arasında ilişki bulunmuştur. Hiyerarşik regresyon analizi sonuçlarına göre öz-yeterlilik, öznel zindelik ve okul tükenmişliği arasındaki ilişkide aracı rol üstlenmiştir.

Anahtar Kelimeler: Öz-yeterlilik; tükenmişlik; zindelik

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Introduction

The current study aims to investigate students' subjective vitality, school burnout, and self-efficacy. The concept of subjective vitality refers to the state of feeling alive and alert to having energy available to the self. Vitality is considered then as an aspect of physical well-being. It is considered also as an aspect of eudemonic well-being (Ryan & Frederick, 1997). On the other hand, burnout is defined as the final outcome of experiencing excessive and chronic work-related stress which might result from feelings of incompetence and lack of professional confidence (Leiter 1992; Schwarzer & Hallum 2008). Self-efficacy refers to peoples' beliefs about their capabilities to perform a task successfully at designated levels (Bandura, 1997). Self-efficacy is a factor related to individuals' perceptions about their competence in carrying out the roles prescribed for them in order to achieve a set of general objectives (Skaalvik & Skaalvik 2010). Up to now, although there have been a lot of studies which have investigated the between burnout and self efficacy with regards to different participants (e.g. Leiter 1992; Schwarzer & Hallum 2008; Skaalvik & Skaalvik 2010), lack of research examining these variables with respect to adolescents and subjective vitality. This study, therefore, contributes to the limited literature while evaluating findings with regards to current developments in school psychology.

Subjective Vitality

The domain of functioning well in life consists of psychological and social well-being (Salama-Younes, 2011). Psychological well-being includes of three aspects: Happiness, purposive, and vitality. These aspects are created in a person whose vital needs have been satisfied. In this situation, Kaplan (1995) declared that people are prompted to preserve their vitality and achieve an insight from themselves, their life and the environment. In other words, vitality is an indicator of mental positive energy, and a vital and cheerful person is an alert and fresh person and also is full of life and energy (Fini, Kavousian, Beigy, & Emami, 2010). According to Self-Determination Theory of Deci and Ryan (1985), energy has a main role in subjective vitality. To retain well-being and subjective vitality, it is necessary to enjoy an optimum level of mental energy (Fini et al., 2010). Ryan and Fredric (1997) described subjective vitality as an entity full of energy, enthusiasm, aliveness, non-fatigue, weariness, and exhaustion, and proved that when the subjective vitality is in a lower level, irritability and fatigue will be created and it may not make completely use of potential to do activities. Ryan and Deci (2001) further explained that when the subjective vitality is in a higher level, sufficient energy will be created to do such activities, and the mood is in a fit status, so all tasks and activities are performed very well. Ryan and Frederick (1997) found that subjective vitality was positively related to body functioning self-esteem, perceived physical ability, self-actualization, satisfaction with life, positive affectivity, extraversion, conscientiousness, and physical self-presentation confidence. Similarly, it was found that subjective vitality was positively associated with subjective happiness (Akin, 2012; Uysal, Satici, & Akin, 2013), emotional well-being, social well-being, psychological well-being, and satisfaction with life and was negatively associated with psychological distress (Ryan & Frederick, 1997). In contrast to this finding, subjective vitality has been found to be negatively related to depressive symptoms (Niemic, Lynch, Vansteenkiste et al. 2006) anxiety, negative affectivity, neuroticism, somatic distress, physical symptoms, physical pain, and external locus of

control (Ryan & Frederick, 1997), internet addiction (Akin, 2012), Facebook® addiction (Uysal, Satıcı, & Akin, 2013).

School Burnout

Burnout has been an extensively investigated factor in contemporary psychology. It is mainly associated with the inability to cope with work-related stress which may result in negative emotional, physical, professional and social consequences (Maslach 1982; Ratliff 1988). Maslach and Jackson (1981) characterized burnout as three elements: (1) ‘emotional exhaustion’ describes the case in which an individual’s healthy psychological state is overridden by intensive emotions, (2) ‘reduced personal accomplishment’ is an individual’s feeling of lack of competence and ability to carry out a specific task and (3) ‘depersonalization’ is the process when an individual starts to hold strong negative perceptions towards the profession. In addition to this analysis of burnout which is based on emotional exhaustion, Yang (2004) highlighted the significance of physical disturbance and exhaustion as resulting from extensive school work. Schaufeli, Martínez, Marqués-Pinto, Salanova, & Bakker, (2002) defined burnout among college students as “feeling exhausted because of study demands (exhaustion), having a cynical and detached attitude towards one’s schoolwork (cynicism), and feeling incompetent as a student (reduced efficacy also known reduced academic efficacy)”(p.465). Namely, school burnout composed three dimensions: emotional exhaustion, cynicism, and reduced academic efficacy (Schaufeli et al., 2002). Yang (2004) emphasized that symptoms of school burnout are similar to work environment. He (2004) also explained that “students in the learning process, because of course stress, course load or other psychological factors, display a state of emotional exhaustion, a tendency to depersonalization, and a feeling of low personal accomplishment” (p. 287).

Previous studies reported that student burnout can lead to higher academic procrastination (Balkıs, 2013), stress (Chang, Rand, & Strunk, 2000), lower academic achievement (McCarthy, Pretty, & Catano, 1990). Durán, Extremera, Rey, Fernández-Berrocal, & Montalbán (2006) found that emotional exhaustion and cynicism were positively related with perceived stress, and negatively associated with self efficacy, perceived emotional intelligent and academic engagement among college students. In brief the negative and undesirable results of burnout suggest that life for the students who experience being burned out is complicated and seemingly out of control. It may decrease the overall quality of life and the college experience, negatively effecting burn outing students’ well-being (Balkıs, 2013).

Self-Efficacy

Self-efficacy is one of the most important factors which affect people’s judgments about environmental issues (Bandura, 1977). According to Bandura (1986), a sense of self-efficacy creates the belief that an individual can succeed in a particular situation by making necessary organization, changes or improvement in the given condition. In this perspective, an individual can be seen as an active organizer of his/her environment and might have influence on it (Bandura, 2006). People who have high self-efficacy can develop effective coping strategies when dealing with unpleasant things. However, lack of belief in self-efficacy might result in withdrawal from the process of setting objectives and assuming responsibilities towards achieving an aim usually because of the consideration of one’s own capability as insufficient to overcome potential constraints (Bandura, 2006). Because of low self-efficacy, people may not develop alternative solutions to their problems, they may have stress and depression, and they may not have the willingness to face difficult tasks (Pajares, 1996). Individuals form their self-efficacy beliefs by interpreting

information primarily from four sources: enactive mastery, vicarious experience, social or verbal persuasions, and physiological states. Physiological and emotional states such as anxiety and stress, along with one's mood, provide information about efficacy beliefs (Muris, 2001; 2002; Valente, Ribeiro, & Jensen, 2009). Typically, optimism or a positive mood enhances self-efficacy, whereas depression, despair, or a sense of despondency diminishes it (Magaletta & Oliver, 1999; Muris, 2002). Although Bandura (1997) introduced the concept of general self-efficacy, he also stuck to the point of self-efficacy as a task-specific belief system. But Zimmerman (2000) emphasized that self-efficacy change according to the demands of domain; therefore, academic self efficacy, mathematics self-efficacy, reading self-efficacy, and social self-efficacy are different concepts. For instance, an individual may have higher academic self-efficacy, but lower social self-efficacy.

The present study

Lack of research in the field of school psychology in Turkey is a phenomenon (Erdur-Baker, Özmen, & Özmen, 2011). Especially research which focuses on students who are adolescents (Aypay, 2011; Aypay & Eryılmaz, 2011; Balkıs, 2013; Göktaş et al., 2012; Ulgen, Ozturk, & Armstrong, 2012) has been rare and such research has usually come up with findings related to either variable which are investigated in this research. Besides, there are no studies about adolescents' subjective vitality based on this lack of research; this study mainly aims at investigating the self-efficacy, school burnout and subjective vitality among adolescents in Turkey. In order to realize the aims of this research, the following two hypotheses were tested:

H1: Self efficacy is positively associated with subjective vitality.

H2: Self efficacy is negatively associated with school burnout.

H3: Subjective vitality is negatively associated with school burnout.

H4: Self efficacy mediates the link between subjective vitality and school burnout.

Method

Participants

The participants of the study consisted of adolescents who have attended from different public high schools. Overall, 344 students contributed to this study. There were 169 males and 175 females. Their ages ranged from 13 to 18 and the mean age of the participants was 15.4 years. The grades of these students were 1. Grade (n=79), 2. Grade (n=83), 3. Grade (n=90), 4. Grade (n=91).

Instruments

Subjective Vitality Scale (SVS): Subjective vitality was measured with the Subjective Vitality Scale (Ryan & Frederick, 1997). It consists of 7 items (e.g., "I nearly always feel awake and alert") rated on a 7-point scale (1 = not true at all, 7 = very true). The total score can range from 7 to 49; a higher score indicates more subjective vitality. The internal consistency coefficient of the original form was .84. This scale had been adapted to Turkish by Uysal, Sariçam and Akin (2014). The results of confirmatory factor analysis indicated that the model was well fit (NFI = 0.99, CFI = 1.00, GFI = 0.99, RMSEA = 0.047, and AGFI = 0.96). The Cronbach's α of the Turkish form was .84.

School Burnout Inventory (SBI): This scale developed by Salmela-Aro, Kiuru, Leskinen, and Nurmi (2009), SBI was translated and adapted to Turkish by Akin, Sariçam et al. (2013). The response format is a 6-point scale (1 = strongly disagree, 6 = strongly agree). Results confirmatory factor analyses demonstrated that 9

items yielded three factors as original form and that the three-dimensional model was well fit ($\chi^2=45.28$, $df=21$, $RMSEA=.061$, $NFI=.95$, $NNFI=.95$, $CFI=.97$, $IFI=.97$, $GFI=.97$, $SRMR=.038$). But second study showed that 9 items yielded one factor and the one-dimensional model was well fit ($\chi^2= 68.78$, $df=25$, $p<0.001$, $RMSEA=.075$, $NFI=.96$, $NNFI=.97$, $CFI=.98$, $IFI=.98$, $RFI=.95$, $GFI=.95$, $AGFI=.92$, and $SRMR=.044$). Factor loadings ranged from .41 to .83. Cronbach alpha internal consistency coefficient was found as .85 for overall scale, .73 for exhaustion at schoolwork sub-scale, .69 for cynicism toward the meaning of school subscale, .60 for sense of inadequacy at school sub-scale. Test-retest reliability coefficient was as .75 for whole scale. Corrected item-total correlations ranged from .35 to .64.

General Self-Efficacy Scale-Turkish Form (GSESTF): The SGSES (Sherer et al., 1982) is a Likert format 17-item scale (example of items include: “When I make plans, I am certain I can make them work”, “When trying to learn something new, I soon give up if I am not initially successful”, “I do not seem capable of dealing with most problems that come up in life). The response format is a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Sum of item scores reflects general self-efficacy. The higher the total score is, the more self-efficacious the respondent. The SGSES was adapted to Turkish by Yıldırım and İlhan (2010) and it has three subscale measures: Starting (9 items), undaunted (5 items), persistence (3 items). The Cronbach’s alpha coefficient for the whole scale was .80 and the test-retest reliability coefficient estimated from data for 236 individuals that were contacted for follow-up was .69.

Procedure

Permission for participation of students was obtained from related school managers. Researchers administered the self-report questionnaires to the students in the classroom environment; participants were all volunteer students, not from intact classes. The measures were counterbalanced in administration. All participation was voluntary. Students did not place their names on the measures and were advised not to talk each other. Participants completed the questionnaires in approximately in 15 min.

Outliers and assumptions of the multiple regressions were checked before multiple regression analysis was conducted. After all assumptions were met, regression analysis was conducted. For multiple regression analysis, school burnout was entered as dependent variable; self-efficacy, and subjective vitality were entered as independent variables. In order to test mediating role of self efficacy on the relationships between subjective vitality and school burnout, hierarchical regression procedures were performed as recommended by Frazier, Tix, and Baron (2004), Kenny, Kashy, and Bolger (1998), Kenny, Korchmaros, and Bolger (2003). According to Kenny, Korchmaros, and Bolger (2003), four conditions must be met to show statistically the mediating effect of self efficacy on the relation between subjective vitality and school burnout: (1) All variables must be associated with each others, (2) subjective vitality must be predicted by self efficacy (this result is also necessary for the Sobel z test), (3) school burnout must be predicted by subjective vitality, (4) When self efficacy is controlled, there must be a statistically significant reduction in the effect of subjective vitality on school burnout. If the relation is reduced to non-significant levels, full mediation is demonstrated. Partial mediation occur when the correlation between subjective vitality and school burnout is reduced but still significant (Kenny, Korchmaros, & Bolger, 2003). These analyses were carried out using SPSS.

Results

Correlations between School Burnout, Subjective Vitality, and Self Efficacy

Table 1. Descriptive Statistics, Cronbach's Alpha Coefficients, and Intercorrelations of the Variables

Variables	1	2	3
1. Subjective vitality	1		
2. School burnout	-.49**	1	
3. Self efficacy	.41**	-.52**	1
Mean	37.61	31.22	69.56
Sd	8.95	7.97	25.44
Alpha	.81	.87	.78

**Correlation is significant at the .01 level (2-tailed).

Table 1 show that there are significant correlations between subjective vitality, school burnout and general self-efficacy. Subjective vitality ($r=-.49$) and self-efficacy ($r=-.52$) related negatively to school burnout. Moreover, subjective vitality ($r=.41$) was found positively associated with self-efficacy

Regression Analysis

Following the steps of the mediation procedure, second, it was verified that self efficacy and subjective vitality (dependent variable) were positively related ($\beta= -0.27$, $t= 2.98$, $p < 0.001$). The results are shown in Table 2.

Table 2. The Regression Results of the Relationship between Subjective Vitality and Self Efficacy

Variables	Unstandardized Coefficients		Standardized Coefficients		R	R ²	F
	B	SE _B	β	t			
Self Efficacy	0.29	0.013	0.27	2.98*	.41	.17	15.80*

* $p < .001$

For the third and fourth of the mediation procedure, two stepwise multiple regression analysis was applied to assess which variables were the best predictors of school burnout. Table 3 showed the results of multiple regression analysis where the independent variables were self efficacy and subjective vitality scores; and the dependent variable was school burnout. Subjective vitality entered the equation first, accounting for 31% of the variance in predicting school burnout. Self efficacy entered on the second step accounting for an additional 13% of the variance. This means that self efficacy and subjective vitality explain 44% of the variance in predicting school burnout. The standardized beta coefficients indicated the relative influence of the variables in the last model with self efficacy and subjective vitality statistically significantly related to school burnout, and subjective vitality was strongest predictor of school burnout.

Table 3. Mediation of self efficacy in relation between subjective vitality and school burnout: hierarchical regression analysis with dependent variable school burnout

Variables	Unstandardized Coefficients		Standardized Coefficients		R	R ²	F
	B	SE _B	β	t			
Step1							
Subjective vitality	-0.54	0.021	-0.59	-10.15*	.56	.31	64.68*
Step2							
Subjective vitality	-0.41	0.019	-0.48	-5.81*	.66	.44	39.21*
Self efficacy	-0.26	0.018	-0.14	-4.97*			

**p*<.001

The results of the hierarchical regression analysis demonstrated that subjective vitality was negatively associated with school burnout ($\beta = -0.59$, $t = -10.15$, $p = 0.000$). However, when subjective vitality and self efficacy were taken together in the regression analysis, the significance of the relationship between subjective vitality and school burnout ($\beta = -0.48$, $t = -5.81$, $p = 0.000$) decreased, yet the relationship between subjective vitality and subjective happiness was significant. According to Kenny et al. (2003), this result indicated a partial mediation. Therefore, it can be said that self efficacy partially explains the relationship between school burnout and subjective vitality.

The present model was tested using the Sobel z test. The purpose of this test is to verify whether a mediator carries the influence of an interdependent variable to a dependent variable. The Sobel z test is characterized as being a restrictive test, and as such, assures that the verified results are not derived from collinearity issues. In the current study, the test value verified was $Z = 12.1246312$; $p = 0.000$.

Discussion

The main purpose of the current study was to investigate relationships between subjective vitality, school burnout and self-efficacy in Turkish adolescents. First, as hypothesized, self efficacy has positively predicted to subjective vitality. This finding suggests that higher self efficacy is associated with higher subjective vitality. Although subjective vitality has been positively related to happiness (Akin, 2012), body functioning self-esteem, satisfaction with life, and positive affectivity (Ryan & Frederick, 1997) and negatively to depressive symptoms (Bostic, Rubio, & Hood, 2000), anxiety, negative affectivity (Ryan & Frederick, 1997), Internet addiction (Akin, 2012), and Facebook® addiction (Uysal, Satici, & Akin, 2013). Self efficacy has been positively related to hope, lower stress (O’Sullivan, 2011), life satisfaction (Çakar, 2012), and negatively related to depression (Chang, Park, & Sok, 2013), loneliness (Fry & Debats, 2002), and lower self esteem (Sahranavard & Hassan, 2012). In addition, subjective vitality is a “positive feeling of aliveness and energy” (Ryan & Frederick, 1997) and this psychological energy is available to an individual; it reflects psychological well-being and enhances behaviors that support life satisfaction (Akin, 2012). Similarly, self-

efficacy is an important predictor of performance and is a primary cause of feelings of self-worth and perceived usefulness (Kotaman, 2010); it provides satisfaction with life (Çakar, 2012). Therefore, and consistent with the results of the present study, it appears that if individuals can enhance their self efficacy, they may increase their subjective vitality.

Second, as anticipated, school burnout was negatively related to self efficacy. Charkhabi, Abarghuei, and Hayati (2013) found that the relationships between academic burnout and its components with self-efficacy were statistically significant. Similarly, Çapri, Özkendir, Özkurt, and Karakuş, (2012) declared that general self-efficacy beliefs have negative relationships with student burnout. The findings of my research were in agreement with the findings of previous studies (e.g. Ratliff, 1988; Schwarzer & Hallum 2008; Skaalvik & Skaalvik 2010;) which established strong relationships between self-efficacy and burnout.

Third, as estimated, school burnout was negatively predicted by subjective vitality. Burnout is typically conceptualized as a syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach, Jackson, & Leiter, 1996). Exhaustion refers to feelings of strain, particularly chronic fatigue resulting from overtaxing work (Maslach, 1982). Stress is the one of the most obvious sources of exhaustion (Schaufeli, & Buunk, 2003). Subjective vitality is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence also in the face of difficulties (Ryan & Frederick, 1997). Selye (1956) proposed that individuals possess a limited reservoir of "subjective vitality" that is expended when facing environmental and disease stressors. Namely, stress is negatively related to subjective vitality. Because of the stress, school burnout has negative relationships with subjective vitality. If students can improve their subjective vitality, they may decrease their school burnout.

Finally, self efficacy partially mediated the relationship between school burnout and subjective vitality. This result is important for several reasons. The study extends what is known about subjective vitality and its link to school burnout and self efficacy. Although studies have suggested that self efficacy can crucially influence subjective vitality and school burnout, no research has found the factors that might mediate these relationships. Alias, subjective vitality and school burnout literature is vague about how subjective vitality decreases school burnout or vice versa. The results of this study are particularly interesting, because they suggested that self efficacy influences school burnout through subjective vitality.

As far as the relationships between students' general self-efficacy, school burnout, and subjective vitality are concerned, strong negative relationships were found. This result is consistent with Lazarus and Folkman's (1984) consideration of stress as a significant factor corresponding with the beliefs of individuals towards their effectiveness (Leiter, 1992) and sufficiency of their skills and resources. In addition, Leiter and Skoe (1989) as stated, an indication of burnout was a strong predictor of lowered beliefs in self-efficacy. On the other hand, subjective vitality has negative relationship with exhaustion. Similarly, I found school burnout to be negatively related with the adolescents' subjective vitality. This suggests the link between the school burnout risk at which students might be (Leiter, 1992) and the likelihood they might develop negative perceptions of their professional identities, skills, profession, and mental positive energy.

This study had several limitations. First of all, the number of participants in the study might not be expected to be representative of the adolescents who attend public high schools. Future studies, may include more participants from more diverse settings. Secondly, this study focuses on the adolescents. However, there is a high need to consider the current situation of students who are teenagers or pre-adolescents and youths.

Finally, in this study, there might have been factors which influenced the school burnout, subjective vitality and self-efficacy of high school students. While we have clearly investigated the relationship between subjective vitality and school burnout, future studies might aim to identify other mediators which might contribute to the relationship between these two variables.

In conclusion, this investigation shows that self efficacy affects subjective vitality and school burnout directly. Students high in self efficacy are more likely to be high in subjective vitality and low in school burnout. Therefore, the current findings increase our understanding of the relationships between subjective vitality, school burnout, and self efficacy. We hope that our results may help educational agencies in designing suitable self efficacy encouraging programs geared toward the college population.

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