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Full Length Research Paper

Social Emotional Learning and Educational Stress: A Predictive Model

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The purpose of this study is to examine the relationship between social emotional learning and educational stress. Participants were 321 elementary students. Social emotional learning and educational stress scale were used as measures. The relationships between social emotional learning and educational stress were examined using correlation analysis and stepwise regression analysis. Correlation analysis showed that sub scales of educational stress pressure from study, workload, worry about grades, self-expectation, and despondency related negatively associated with social emotional learning. In addition, social emotional learning was predicted negatively by pressure from study workload worry about grades self-expectation and despondency.

Key - words: Social emotional learning, educational stress, stepwise regression analysis.

INTRODUCTION

Social and emotional competence includes the skills of understanding and managing social and emotional aspects in the course of live. Teaching-learning process, solving daily problems, communicating, and adapting to new situations are included in the social and emotional competence process (Jarvela, 2011). Social emotional learning concept came up as a result of conceptualizing the intelligence's relationship with success and happiness. It was defined as a vital process in which children and adults develop their skills, attitudes, and values in order to reach social and emotional competence (Stern, 1999). Goleman (1995) indicated that social and emotional learning is a complicated and sophisticated ability that takes part in all of the important dimensions of life. Moreover, it is considered as a process that helps children and even adults developing necessary skills for life productivity (Hayne et al., 2003). Similarly, it covers identifying and managing one's emotions, thinking about others, making good decisions, behaving ethical and responsible, establishing good communication, and avoiding negative emotions (Elias et al., 1997). When considered from social development perspective, social emotional learning includes how children's social and emotional competence develop in socialization process (Pasi, 2001). Social emotional learning is a complementary approach that is handled in social and emotional terms where an individual expresses himself/herself through the lifelong aims and managing and perceiving levels of these aims (Novick et al., 2002; Patrikakou et al., 2005). According to Casel, individuals who have main

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Authors agree that this article remain permanently open access under the terms of the <u>Creative Commons</u> <u>Attribution License 4.0 International License</u> social emotional competence for being successful in business and academic life are more likely to be successful in all areas of life. The gain of school age children in social emotional learning process is very important in terms of shaping those children's behavior patterns in time (Cefai and Cooper, 2009).

Social emotional learning include emotional intelligence, social intelligence, and social emotional competence. Intelligence has importance in terms of individuals' socioemotional conception level. In this respect, social emotional learning is a process that helps individual developing significant skills in terms of productivity in life. Cognitive theorists consider social emotional intelligence as a part of maturation. Furthermore, scientific researches show that social emotional intelligence has importance in factors that affect individual's success (Elias et al., 1997; Patrikakou et al., 2005). In addition, it means a sum of processes in which abilities, attitudes, and values develop in terms of social emotional competence in the individual's life (Elias et al., 1997). Social emotional learning skills are divided into four parts, namely problem solving, communication, abilities that increase self- worth. and avoiding stress (Kabakçı and Owen, 2010). Social emotional learning abilities have important effects on students in terms of academic achievement, motivation in learning process, increasing school interest, taking part in cooperation process, coming of social abilities into prominence, and improving problem solving abilities (Arslan and Akın, 2013; Arslan et al., 2012).

Education Stress

The term of stress was originally defined by Selve in the 1930s to describe laboratory animals' physiological responses and the stress notion covers the perceptions and responses of individuals in terms of adapting to new situations in life (Selye, 1983). The work of Selye (1978) was based on Cannon's study, which was about fight or flight responses theory that organisms react to threats as a result of the activity in sympathetic nervous system. Similar to other psychological concepts, stress definition has been used in different ways; it is not merely a stimulus and/or a response, instead it is a process that individuals interpret and cope with troubles and challenges. According to Lazarus, it is an evaluation of an external pressure and the associated psychological results or effects on the psychological system (1993). Recently, it is defined as physiological and mental reactions of an individual to the pressures from the environment, perceptions, and others (Grant et al., 2006; Hess and Copeland, 2006). Put it differently, stress is "a negative emotion strongly associated with doubt about coping" (Jones, 1993, p. 739). In general, it is considered as a reaction to the environment or life events, and the strength and duration of stressors may change from individual to individual and from situation to situation.

In educational process (and in adulthood), stress may result from catastrophes or traumatic life events (e.g., grade repetition, or losing one's parent), continuous difficulty or tenseness (e.g., economic problems, underachievement in academic life), and problems in daily life (e.g., assignments, discussion with friends) (Hess and Copeland, 2006). Indeed, in general in the literature, it is indicated that problems in daily life are the most consistent source of stress and that plays a mediation role in terms of the relationship between major events and psychological symptoms (Hampel and Peterman, 2006; Printz et al., 1999; Sim, 2000). As Jones asserted that a major amount of stress which has an effect on children and adolescents can be attributed to academic life, perhaps depending on the amount of time students spend in school and associated academic activities (1993). Educational stress can be defined as an interaction of the student between environmental stressors, his/her cognitive appraisal of and dealing with the academic stressors. and psychological or physiological reactions to these stressors (Lee and Larson, 2000; Lou and Chi, 2000). Educational stress is a permeative problem among countries, cultures, and ethnic groups, and must be considered in its own context (Wong et al., 2006). According to Verma and Gupta (1990), educational stress is mental distress with regard to some perceived frustration related to academic failure, perception of such failure, or even a consciousness of the possibility of failure. Furthermore, educational stress is defined as a state of distress resulted from a student's evaluation of excessive academic demands (e.g., excessive assignment, excessive amount of exams; Lee and Larson, 2000; Lou and Chi, 2000), generally ending up with negative impacts on student's mental and physical health (e.g., Clark and Rieker, 1986; Felsten and Wilcox, 1992), as well as their performance in school (e.g., Struthers et al., 2000). Educational stress factors related to the individual level covers stereotype vulnerability, that is to say one is susceptible to stereotype threat (Steele and Aronson, 1995). Educational stress derived from academic activities changes depend on the gender, ethical background, and socio-economic status. Males usually report less stress and pressure than females (Jones and Hattie, 1991; Xie, 2007; Zhao and Yuan, 2006). This may be derived from the fact that females are more prone to consider school performance as very important, and have worries about academic failure (Jones and Hattie, 1991). In Western countries, students from ethnic minority groups, particularly students from Asian backgrounds, are more prone to experience stress because of academic learning than other students (Coney and West, 1979; Jones and Hattie, 1991). Similarly, students coming from disadvantaged backgrounds have also been reported to experience higher amount of educational pressure (Coney and West 1979; Li et al. 2007; Moshe 1992). The purpose of this study was to examine the relationship between social

emotional learning and educational stress.

The present study

Few studies have connected social emotional learning with school characteristics (Elias et al., 1997; Pasi, 2001) and, to our knowledge, no research has been conducted investigating educational stress relationship to social emotional learning. Thus, the aim of the present study is to examine the relationship between educational stress and social emotional learning. In present research the social emotional learning have been considered as an outcome and educational stress as the predictor. It is hypothesized that educational stress would be associated negatively with social emotional learning based on the studies on educational stress (Grant et al., 2006; Hampel and Peterman, 2006; Hess and Copeland, 2006; Printz et al., 1999; Sim, 2000) and social emotional learning (Arslan and Akın, 2013; Elias et al., 1997; Novick et al., 2002; Patrikakou et al., 2005).

Participants

Participants were 321 (180 (56%) were female and 141 (44%) were male) elemantary school students from Sakarya. Of the participants, 151 (48%) were seventh grade- students, 170 (52%) were eight grade-students. Their ages ranged from 13 to 14 years old (M = 13.01, SD = 1.43). Educational stress can begin in elementary school with overscheduling, tests, even tutoring for students. Muris et al. (1988) stated that nearly 70% of elementary school students have everyday worries and anxiety, and exhibit signs of extreme worry and anxiety. For that reason, convenience sapling was the method used while selecting the participants. Convenience sampling is a non-probability sampling technique where subjects are selected because of their convenient accessibility and proximity to the researcher (Bryman, 2004). For this reason, it is not suitable to use the results of this study to make inferences about the entire population. Therefore, in this study no inference was made based on population that causes to decrease in external validity. No pressure was put on the participants; they filled out questionnaires voluntarily. Participants were not asked to put their personal information on questionnaires; confidentiality was guaranteed. Students were grouped in classrooms and survey instruments were distributed. While applying, measures were counter balanced. Before questionnaires, participants were all informed about the purpose of the study.

METHODS

The study utilized two types of scales: Social-Emotional Learning Scale (SELS) and Educational Stress Scale (ESS). The Social-

Emotional Learning Scale (SELS) is a measuring tool which is developed by Coryn (2009) consists of 20 items and 3 sub-scales. Factor loads of SELS which is a 5-point likert type measuring tool varies between .41 and .71. Internal consistency reliability coefficients of the scale vary between .76 and .87 for subdimensions and between .72 and .82 for test-retest reliability coefficients. High scores obtained from each sub-dimension indicate that the individual has the concerning social-emotional learning attribute. Educational Stress Scale (ESS). The ESS is developed by Sun et al. (2011), consists of 16 items (five factor: workload, worry about grades, self-expectation, and despondency) and each item was presented on a 5-point Likert-type scale ranging from 1 = strongly disagree to 5 = strongly agree with a higher score indicating greater stress. Turkish adaptation of this scale had been done by Akın et al., (2012). They found that internal consistency was .87 for Turkish university students. The goodness of fit index values of the model were RMSEA=.037, NFI=.97, NNFI=.99, CFI=.99, IFI=.99, RFI=.96, GFI=.95, AGFI=.92 and SRMR=.041. The corrected item-total correlations of ESS ranged from .40 to .60. Factor loadings ranged from .68 to .95.

PROCEDURE

The elementary students were informed about the aims of the study. The package is administered to those who consented to participate in the study in a classroom setting. Prior to administration of scales, all participants were told about purposes of the study. In this research, Pearson correlation coefficient and multiple regression analysis were utilized to determine the relationships between dimensions of educational stress and social emotional learning. In this research, Pearson correlation coefficient and multiple regression analysis were utilized to determine the relationships between student academic support and life satisfaction. In this study, the Pearson correlation coefficient was applied to assess statistical significance for the role of educational stress on social emotional learning. In addition, stepwise multiple regression analysis was applied. The stepwise method was utilized in order to investigate the best predictor and the relative order of the predictor. Social emotional learning entered in to the regression equation as the dependent variable and education stress was independent variable. These analyses were carried out via SPSS 17

RESULTS

Descriptive data and inter-correlations

Table 1 shows the means, standard deviations, intercorrelations, and internal consistency coefficients of the variables used. Preliminary correlation analysis showed that pressure from study (r = -.50), workload (r = -.46), worry about grades (r = -.48), self-expectation (r = -.49), and despondency (r = -.66) related negatively associated with social emotional learning.

Multiple regression analysis

Before applying regression, assumptions of multiple regression were checked. The data were examined for normality by the Kolmogorov-Smirnov test. The Kolmogorov-Smirnov test indicated normality of

Variables	Pressure from study	Workload	Worry about grades	Self- expectation	Despondency	Social emotional learning
Pressure from study	_					
Workload	.60**	_				
Worry about grades	.59**	. 53**	_			
Self-expectation	.64**	.68**	.52**	-		
Despondency	.53**	.48**	.53**	.51**	_	
Social emotional learning	50**	46**	48**	49**	-66**	_
Mean	12.64	10.77	8.94	10.10	8.46	
Standard deviation	4.98	3.88	3.79	3.44	3.63	

Table 1. Descriptive statistics and inter-correlations of the variables.

***p* < .01

distributions of test scores for all tests in the current study. Outliers are cases that have data values that are very different from the data values for the majority of cases in the data set. Outliers were investigated using Mahalanobis distance. A case is outlier if the probability associated with its D2 is .001 or less (Tabachnick and Fidell, 2001). Based on this criterion, five data were labeled as outliers and they were deleted. Multicollinearity was checked by the variance inflation factors (VIF). All the VIF values were less than 10 (Tabachnick and Fidell, 2001), which indicated that there was no multicollinearity. Stepwise multiple regression analysis have applied to determine which dimensions of education stress was the best predictors of social emotional learning. Table 2 showed the results of multiple regression analysis where the independent variables were dimensions of between educational stress and the dependent variable was social emotional learning.

According to the results of the regression analysis, pressure from study, β = -.507, p < .00, significantly predicted social emotional learning, entered the equation first and accounting for 25% of the variance in predicting social emotional learning. Adjusted R squared indicated that pressure from study predicted 25% of the variance in social emotional learning. Workload, $\beta = -.244$, p < .00, significantly predicted social emotional learning, entered on the second step accounting for an additional 4% variance. Adjusted R squared indicated that workload predicted 4% of the variance in social emotional learning. Worry about grades, $\beta = -.237$, p < .00, significantly predicted social emotional learning, on the third step accounting for an additional 3% variance. Adjusted R squared indicated that worry about grades predicted 4% of the variance in social emotional learning. Selfexpectation, β = -.182, p < .09, on the fourth step accounting for an additional 1% variance. Adjusted R squared indicated that self-expectation predicted 1% of the variance in social emotional learning. Despondecy, β = -.496, p < .00, on the fifth step accounting for an additional 15 % variance. Adjusted R squared indicated that despondecy predicted 15% of the variance in social emotional learning. The last regression models pressure from study, workload, worry about grades, selfexpectation and despondecy as predictors of social emotional learning and accounted for 48% of the variance in social emotional learning. The standardized beta coefficients indicated the relative influence of the variables in last model with pressure from study, workload, worry about grades, self-expectation and despondency all significantly influencing social emotional learning and pressure from study was strongest predictor of social emotional learning.

DISCUSSION

The main aim of the present study was to examine the relationships between education stress and social emotional learning and whether educational stress predicted students' social emotional learning levels. The results clearly supported that the hypotheses of study was correct. Preliminary correlation analyses showed that pressure from study, workload, worry about grades, selfexpectation, and despondency were negatively associated with social emotional learning. As a result of stepwise regression analysis pressure from study, workload, worry about grades, self-expectation, and despondency predicted social emotional learning level of students' significantly. The results of correlation and regression analyses confirm the hypothesis, and the importance of educational stress, for better understanding key element of social emotional learning.

According to this research results, the significant predictor of social emotional learning was coping with educational stress. There was a negative significant correlation between social emotional learning and coping with educational stress. There are only indirect studies that investigate relations between social emotional learning and educational stress which support the results of the present study. DuPont (1998) stated that, coping with stress can control urges which exaggerate aggressive behaviors. This situation is also related to

Variables	В	SE _B	β	t	р	R	R^2	F	р
Step 1									
Pressure from study	-1.2	.11	507	10.493	.00	.507	.25	110.11	.00
Step 2									
Pressure from study	86	.14	359	6.043	.00	542	20	16 850	00
Workload	75	.18	244	4.106	.00	.042	.29	10.009	.00
Step 3									
Pressure from study	61	.15	256	4.030	.00				
Workload	55	.18	180	2.987	.00	.572	.32	15.741	.00
Worry about grades	75	.18	237	3.968	.03				
•									
Step 4									
Pressure from study	48	.15	201	3.024	.00				
Workload	30	.20	099	1.473	.14	595	22	6 086	00
Worry about grades	68	.18	217	3.645	.00	.505	.55	0.300	.03
Self-expectation	63	.23	182	2.643	.00				
Step 5									
Pressure from study	23	.14	098	1.658	.09				
Workload	14	.18	046	.769	.44	.701	.48	93.00	.00
Worry about grades	26	.17	084	1.559	.12				
Self-expectation	34	.21	101	1.646	.10				
Despondency	-1.6	.16	496	9.644	.00				

 Table 2. Summary of stepwise multiple regression analysis for variable predicting social emotional learning.

*p<.01

social emotional learning and it includes assessment about how a person feels in the case of educational stress process (Kabakçı and Korkut, 2008). In addition, 7th and 8th grade students are in the period of hard time which can affect negatively coping with educational stress. Therefore, school psychological counselors would focus on increasing students' social emotional learning competences by organizing psycho-educational programs which helps individuals develop skills to cope with educational stress (Baltacı, 2013). There are a variety of reasons that social emotional learning might enhance students' academic performance. Many correlational and longitudinal studies have documented connections between social emotional variables and educational stress (Caprara et al., 2000; Wang et al., 1997). Compelling conceptual rationales based on empirical findings have also been offered to connecting social emotional learning competencies to improved students' school attitudes and performance (Zins et al., 2004). In addition, students who are more self-aware and confident about their social emotional learning capacities try harder and persist when they are face with challenges (Aronson, 2002). Students who set high academic goals, have self-discipline, motivate themselves, manage their educational stress,

and organize their approach to work learn more and get better grades (Duckworth and Seligman, 2005; Elliot and Dweck, 2005). Durlak et al. (2011) stated that SEL programs yielded significant positive effects on targeted social-emotional competencies and reduced conduct and internalizing problems, and improved academic performance on achievement tests and grades. In addition, Kabakçı and Korkut (2008) found that students from low SES can learn to handle stress earlier that other group. Generally, it can be said that social emotional learning skills of 6 to 8th grade student's change according to their gender, grade and social economical status. Denham and Brown (2010) emphasize that social emotional learning also includes handling stress, persevering through obstacles, and expressing emotions appro-priately. Finally, some researchers (Zins et al., 2007) consider that this aspect of social emotional learning includes self-motivation and goal setting.

It must be stated that the research focused on explanatory characteristics of the relationships between educational stress. It, ofcourse brings out some limitations which can require further research. First, the samples presented here are limited to elementary level students that restricts the generalizability of the findings. Besides this limitations, the factors examined in this study only account for a modest proportion of the total variance in educational stress, especially into factors that influence worry about grades and self-expectation stress.

In conclusion, the current findings increase our understanding of the relationship between social emotional learning and educational stress. Despite stated limitations, this study comprehensively examined a wide range of social risk factors for perceived educational stress and social emotional learning with a large sample of students and identified some important correlates. Future research should cover more factors for educational stress and examine its influence on adolescents' social emotional learning, as well as intervention strategies. In addition, future research may be expanded by focusing on demographic variables like gender, age, ethnicity and socio-economic status in order to explore the predictive affects of such variables.

Conflict of Interests

The author has not declared any conflict of interests.

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