Çukurova University Faculty of Education Journal
Vol:42 Issue:1 Page:56-64
http://egitim.cu.edu.tr/efdergi

THE EFFECT OF SOCIAL AND EMOTIONAL LEARNING NEEDS ON DECREASING THE MENTAL SYMPTOMS IN ELEMENTARY SCHOOL STUDENTS*

Zekavet KABASAKAL[a]; Tarık TOTAN[b**]

[a]Dokuz Eylül University, Buca Faculty of Education, Guidance and Counseling, İzmir/Turkey
[b]Adnan Menderes University, Faculty of Education, Guidance and Counseling, Aydın/Turkey

ABSTRACT

The objective of this study is to examine whether the social and emotional learning needs are affective in preserving the mental health of students during elementary level education. To this end, it was assessed at what level and in what direction the social and emotional learning needs of students in the second stage of elementary level education relationships their mental symptoms. The participants of this study are 320 elementary school students (Girls *n*= 149, 48.10%; boys *n*= 161, 51.90%) who were enrolled to an elementary level school during the 2009-2010 school year in the central district of Izmir. The Social-Emotional Learning Scale developed by Coryn, Spybrook, and Blinkiewicz (2009) and adopted into Turkish by Totan (2011) and the Brief Symptom Inventory and the personal information form developed by Derogatis (1992) and adopted into Turkish by Şahin, Durak Batıgün, and Uğurtaş (2002) were used as data acquisition tools in the study. According to the research findings, negative and statistically significant relationships were determined between social and emotional learning needs and the mental symptoms. Also, it was determined as a result of multiple linear regression analysis that the social and emotional learning needs of second grade elementary level students are effective in decreasing the mental symptoms.

***Keywords**: Social and emotional learning, mental symptoms, protective guidance services, multiple linear regression analysis*

INTRODUCTION

Social and emotional learning came up during the nineties due to the facts that schools only emphasized academic education and hence neglected the social and emotional learning requirements of the students (Elias et.al., 2003). It is observed especially during the past decade that many states in the US base their school guidance services on social and emotional learning. Social and emotional learning is defined as the process by which students gain awareness, arrangement skills, social relationships and emotions hence becoming better at managing their lives successfully. Another definition regards social and emotional learning as the process by which individuals gain awareness of their emotions and manage them, start taking other individuals into account, make better decisions, display moral and responsible behavior, develop positive relationships and avoiding negative behavior (Zins and Elias, 2006). Some individuals may succeed in this without any need for support. However, some individuals require support to meet their social and emotional learning needs (Norris, 2003). Hence, the meeting of the social and emotional learning needs of students is as critical as the necessity for academic education.

Today, the importance of developing social and emotional learning skills has been accepted in many countries. Schools in Singapore, Malaysia, Hong Kong, Japan, Korea, Australia, New Zealand and some

*This paper was presented at Second International Conference on New Trends in Education and Their Implications on April 27-29, 2011, Antalya-Turkey.

Co-Author: tarik.totan@adu.edu.tr

Latin America and Africa countries along with England and more than a dozen countries in Europe add classes for increasing social and emotional learning skills to their curriculum (Schonert-Reichl and Hymel, 2007). Whereas in our country the research on social and emotional learning carried out at schools is very limited (Türnüklü, 2004). However, the importance of gaining social and emotional learning skills between the ages of 12-14 is emphasized (Kabakçı and Korkut Owen, 2010).

Social and emotional learning needs are basic requirements that develop the social and emotional learning skills and they are as important as academic education. Giving guidance services at school to help develop the social and emotional learning skills of students not only increase the academic success levels of students but also help them stay away from problematic behavior (Elias et.al., 1997). The increasing of social and emotional learning skills is among the sole responsibilities of both the teachers and the families. Since in early childhood physical development and health along with communication and language development constitute the indicator of social and emotional development, these development areas are critical for the mental health development of the child.

Protecting the mental health of children and supporting their psychological well-being are quite important for their social, emotional and academic development. It is stated by various studies that as mental symptoms decrease many positive behaviors are observed to increase (Payton et.al., 2000; Elias, 2003; Cohen, Onunaku, Clothier, and Poppe, 2005). It is emphasized that starting from early childhood the development of the social and emotional learning needs and the protection of their mental health are effective (Cohen, Onunaku, Clothier, and Poppe, 2005). The development of social and emotional learning needs and skills is important for the protection of the mental health of elementary and secondary school students (Elias et.al., 2003). Both the theoretical and experimental research findings indicate that activities that aim to increase the social and emotional learning needs and skills of students prevent substance abuse, violence and aggressiveness while increasing their well-being and protect their mental health (Payton et.al., 2000; Elias, 2003).

The effect of social and emotional learning needs on the protection of the mental health of students is carefully evaluated in USA and it is included in the school psychological consultancy and guidance services. For instance social and emotional learning is considered as a resource for the protection of the mental health of students in the State of Illinois (Illinois Violence Prevention Authority, 2011). Even though the development of social and emotional learning is considered to be an important variable in the protection of the mental health of individuals, no study has been found in our country about this subject. Hence, the objective of this study is to examine at what levels and in what directions do social and emotional learning needs affect mental symptoms of second stage elementary school students.

METHOD

Participants

The participants of the study is a group of 310 students attending the second stage of an elementary school in the Karşıyaka province of Izmir of whom 149 (%48.10) are girls and 161 (%51.90) are boys. Of the participants determined according to proper sampling method 104 (%33.50) students were 6^{th} grade, 101 (%32.60) were 7^{th} grade and 105 (%33.90) were 8^{th} grade students.

Procedure

The research data was collected by the researchers during the fall semester of the 2010-2011 education year from the second stage of an elementary school at Izmir, Karşıyaka. The data was obtained from a total of 12 different classes. The students took 20-25 minutes on average to fill out the research data acquisition form.

Instruments

Social-emotional learning scale (SELS): The scale developed by Coryn, Spybrook, Evergreen and Blinkiewicz (2009) which was adopted into Turkish by Totan (2011) is a 5-point Likert type scale consisting of 20 items and 3 sub-dimensions. Task Articulation, which is the first sub-dimension, is related with the student being aware of his/her responsibilities, his/her ability to decide in the direction of these responsibilities and his/her ability to articulate these responsibilities. Peer Relations, the second sub-dimension, is a measure of the social relations and the social closeness of the student with his/her peers. Self-regulation, which is the third sub-dimension, evaluates the student's ability to overcome the problems he/she faces while trying to reach his/her goals and his/her ability to develop strategies to re-organize these problems. Coryn et.al. (2009) have determined as a result of corrective factor analysis that their theoretical scale is validated [χ^2= 520.58, *df*= 167, χ^2/*df*= 3.12, AGFI= .90, CFI= 91, GFI= .92, NFI= .90, RMSEA= .06]. They have calculated the Cronbach Alfa coefficients of these sub-dimensions as .69, .80 and .80 for task articulation, peer relations and self-regulation respectively. During the Turkish adaptation of the scale, Totan (2011) has performed the language validity using a bilingual design and has determined relations varying between .51-.79 for Turkish and English forms. Following the corrective factor analysis, the researcher has reported that the original model is validated in the Turkish form as well [χ^2= 487.63, *df*= 167, χ^2/*df*= 2.92, GFI= .92, NFI= .98, CFI= .99, RFI= .99, SRMR= .033, RMSEA= .057]. Totan (2011) has calculated the internal consistency coefficient for task articulation as .82, for peer relations as .88, for self-regulation as .84 and for the total scale as .94 whereas the test-re-test coefficients were calculated to be .80 for task articulation, .78 for peer relations, .96 for self-regulation and .93 for the total scale.

Brief Symptom Inventory (BSI): Prepared by Derogatis (1993) by abridging the 90 item long form. It is a 5-point Likert type scale with 53 items. The scale was adopted into Turkish by Şahin, Durak Batıgün, and Uğurtaş (2002). As a result of their studies, the researchers have determined that the scale consists of 5 factors explaining 32% of the variance. They have named these five sub-dimensions as depression (14 items), anxiety (17 items), negative self-concept (9 items), somatization (7 items) and hostility (4 items). The Cronbach Alfa coefficients were determined to be .88 for depression, .84 for anxiety, .74 for negative self-concept, .70 for somatization, .73 for hostility and .94 for the total.

Personal information form: There are a total of two questions one being a closed ended two-choice question aimed to determine the gender of the participants and the other a closed ended three-choice question aimed to determine the class level of the participants. The research form also contains a briefing form about the study, an e-mail for contacting the researchers and instructions.

Data analysis

Pearson Product Moment Correlation coefficient and multiple linear regression analysis methods have been used for data analysis. The hypothetical criteria were examined prior to the analyses. It was observed that there were no related variables exceeding .90 for multicollinearitiy. The outlier value was determined from the research data by univariate 6 observations, by multivariate Mahalanobis Distance from 5 observations. It was determined that the missing values in the research data do not exceed 5%. A negative linearity was determined between social-emotional learning and mental symptoms when examined using linearity scatter plots. While in binary relations the importance level was determined as .002 by making a Bonferroni correction, the importance level for regression analyses was accepted to be .050 and the analyses were carried out using IBM SPSS PAWS 18 (2009).

RESULTS

Relationship Among Variables

The objective of the study was to examine the protective effect of social and emotional learning needs on mental symptoms. To this end, multiple-linear regression analysis has been used. Prior to the multiple regression analysis, the binary relations between the dependent and independent variables were examined using Pearson Product Moment Correlation coefficients. A Bonferroni correction was made during correlation analysis in order to prevent a type one error. Bonferroni correction factor is calculated by dividing the importance level ($p \leq .05$) by the number of binary relationships between the variables (36 relations) (Green and Salkind, 2009) and a new importance level is thus determined for use in the evaluation of binary relations (.05/36= .002). Results obtained from the correlation analysis carried out by keeping in mind the .002 importance level obtained after correction have been listed in the table below.

Table 1. Relationships between social and emotional learning needs and mental symptoms

	1	2	3	4	5	6	7	8	m	sd.
TA [1]	-								39.94	11.15
PR [2]	.67*								20.26	5.43
SR [3]	.71*	.76*							16.87	5.27
SELT [4]	.82*	.83*	.82*						77.07	12.73
DEP [5]	-.23*	-.31*	-.39*	-.41*					16.65	3.23
ANX [6]	-.10*	-.34*	-.30*	-.35*	.69*				19.36	2.90
NS [7]	-.26*	-.10*	-.23*	-.31*	.65*	.43*			13.28	2.37
SOM [8]	-.19*	-.16*	-.37*	-.39*	69*	.58*	.54*		20.01	3.43
HOS [9]	-.09*	-.13*	-.14*	-.19*	.52*	.50*	.48*	.46*	12.31	2.29

TA: Task articulation, PR: Peer relations, SR: Self-regulation, SELT= Social-emotional learning total, DEP: Depression, ANX: Anxiety, NS: Negative self-concept, SOM: Somatization, HOS: Hostility
*p<.002

As a result of the analyses low and medium negative relationships that can be accepted to be significant were determined between social and emotional learning needs and mental symptoms. According to the results, negative and statistically significant relationships were determined between the social and emotional learning needs of task articulation with depression at a level of -.23 (r^2= .06), with anxiety at a level of -.10 (r^2= .01), with negative self-concept at a level of -.26 (r^2= .07), with somatization at a level of -.19 (r^2= .04) and with hostility at a level of -.09 (r^2= .08); peer relations with depression at a level of -.31 (r^2= .10), with anxiety at a level of -.34 (r^2= .12), with negative self-concept at a level of -.10 (r^2= .01), with somatization at a level of -.16 (r^2= .03) and with hostility at a level of -.13 (r^2= .02); self-regulation with depression at a level of -.39 (r^2= .15), with anxiety at a level of -.30 (r^2= .09), with negative self-concept at a level of -.23 (r^2= .06), with somatization at a level of -.37 (r^2= .14) and with hostility at a level of -.14 (r^2= .02); and lastly social and emotional learning needs with depression at a level of -.41 (r^2= .17), with anxiety at a level of -.35 (r^2= .13), with negative self-concept at a level of -.31 (r^2= .10), with somatization at a level of -.39 (r^2= .15) and with hostility at a level of -.19 (r^2= .04). In addition, the fields of social and emotional learning needs were determined to be significantly and positively related at a level of between .67-.83 and the mental symptoms were determined to be significantly and positively related at a level of between .43-.69.

Multiple linear regression analyses

After determining the negative and significant relationships between the social and emotional learning needs and mental symptoms in dual relations, multiple linear regression analyses were carried out in

order to determine the level and direction for the prediction of depression, anxiety, negative self-concept, somatization and hostility by the social and emotional learning needs of task articulation, peer relations, self-regulation along with the total social and emotional learning needs as the predictive factors. As a result of the multiple regression analyses, it was observed that when all of the predictive variables are included in the model that task articulation is left out. Hence, task articulation was taken out of the model and the analyses were repeated.

Table 2. Predictive power of social and emotional learning needs for mental symptoms

DV	IDV	Unstandardized coefficients		β	*t*	*p*	%95 Confidence Interval	
		B	s.e.				Lower Limit	Upper Limit
DEP	Constant	25.395	1.10		23.022	.000	23.224	27.567
	PR	-.102	.03	-.178	3.137	.002*	-.166	-.038
	SR	-.104	.04	-.175	2.551	.011*	-.184	-.024
	SELT	-.062	.01	-.255	3.830	.000*	-.095	-.030
ANK	Constant	27.217	1.03		26.329	.000	25.182	29.252
	PR	-.139	.03	-.263	4.561	.000*	-.199	-.079
	SR	-.027	.03	-.049	.700	.485	-.102	.048
	SELT	-.058	.01	-.258	3.805	.000*	-.088	-.028
OB	Constant	17.089	.88		19.381	.000	15.353	18.825
	PR	.048	.02	.112	1.838	.067	-.003	.099
	SR	-.042	.03	-.095	1.290	.198	-.106	.022
	SELT	-.052	.01	-.284	3.980	.000*	-.078	-.026
SOM	Constant	27.920	1.20		23.230	.000	25.554	30.286
	PR	-.017	.03	-.028	.484	.628	-.087	.053
	SR	-.129	.04	-.205	2.905	.004*	-.216	-.042
	SELT	-.068	.01	-.262	3.835	.000*	-.103	-.033
HOS	Constant	15.342	.85		17.925	.000	13.657	17.027
	PR	-.034	.02	-.085	1.356	.176	-.084	.015
	SR	-.002	.03	-.005	.061	.952	-.064	.060
	SELT	-.029	.01	-.168	2.275	.024*	-.054	-.004

DV: Dependent variable, INV: Independent variable
PR: Peer relations, SR: Self-regulation, SELT= Social-emotional learning total
DEP: Depression, ANX: Anxiety, NS: Negative self-concept, SOM: Somatization, HOS: Hostility
*p<.050

As a result of the multiple linear regression analysis, it was determined that models of depression ($F_{3\text{-}275}$= 26.599, p= .000), anxiety ($F_{3\text{-}275}$= 22.321, p= .000), negative self-concept ($F_{3\text{-}275}$= 11.477, p= .000), somatization ($F_{3\text{-}275}$= 20.605, p= .000) and hostility ($F_{3\text{-}275}$= 4.203, p= .006) are significant in the prediction of social and emotional learning needs by mental symptoms. According to the obtained results, the R value of depression was calculated to be .474 (R^2= .225), the R value for anxiety was calculated to be .443 (R^2= .196), the R value for negative self-concept was calculated to be .404 (R^2= .163), the R value for somatization was calculated to be .428 (R^2= .184) and the R value for hostility was calculated to be .209 (R^2= .044). It was determined that all the unstandardized regression coefficients obtained for the multiple regression analysis models were between the lower and upper limits within a confidence interval of 95%.

When the models tested during multiple linear regression analyses were handled one by one, it was determined that peer relations (β= -.18), self-regulation (β= -.18) and social and emotional learning (β= -.26) were negatively significant predictors of depression. Social and emotional learning is a significant

negative predictor for the negative self-concept (β= -.28). Self-regulation (β= -.21) and social and emotional learning needs (β= -.26) are significant negative predictors for somatization. (β= -.26) Lastly, it was determined that social and emotional learning needs (β= -.17) are significant negative predictors for hostility.

DISCUSSION

Previous studies contain reports regarding a relationship between social and emotional learning and mental health (Payton et.al., 2000; Elias, 2003; Cohen, Onunaku, Clothier, and Poppe, 2005). It has also been concluded in this study that low and medium level negative significant relations exist between social and emotional learning needs and mental symptoms. According to the obtained results it was determined that there are low levels of negative relationships between the social and emotional learning needs of task articulation, peer relations and self-regulation with the mental symptoms of depression, anxiety, negative self-concept, somatization and hostility and that in addition the social and emotional learning needs have a low level relationship with hostility and have acceptable levels of relationships with other mental symptoms. It was also determined via multiple linear regression analyses that peer relations, self-regulation and social and emotional learning needs are significant negative predictors of depression, peer relations and social and emotional learning needs are significant negative predictors of anxiety, social and emotional learning needs are significant negative predictors of negative self-concept and hostility and that self-regulation and social and emotional learning needs are significant negative predictors of somatization.

In a study examining the developmental differences among social and emotional problems between different bullying statuses (O'Brennan, Bradshaw, and Sawyer, 2009), it was determined that bullies/victims have a higher risk of displaying aggressive behavior and social and emotional problems. In addition, while bullying elementary school students display more aggressive behavior; it was determined that bullying high school students repress their problems more. In their studies, Seah and Ang (2008) have determined that reactive aggressiveness is positively and significantly related with weak interpersonal relations. In another study (La Greca and Harrison, 2005), it was determined that adolescents in peer groups have low social anxiety levels and that the adolescents who are subject to bullying have high social anxiety levels. Similarly, it was determined that the depression symptoms of adolescents in peer groups were less and that adolescents who were subject to peer bullying displayed higher levels of depression symptoms.

In a study carried out in Hong Kong on adolescents (Cheng, Cheung, and Cheung, 2008) the relationship between being subject to peer bullying and depression was examined according to gender differences. When the results of the study are examined, a strong relationship was determined among males between depression symptoms and being subject to peer bullying. In a longitudinal study carried out on adolescents (Allen et.al., 2005), it was determined that popularity among peers decreases hostility and predicts the increase of social adaptation. It was determined that social and emotional learning programs implemented at elementary education level increase the social and emotional learning skills of students, their attitudes towards others and themselves, their positive social behavior and academic success; while it decreasing behavior disorders and emotional distress (Payton et.al., 2008). In a study carried out on adolescents who live away from their parents (Luo, Gao, and Zhang, 2011) it was determined that those who establish good relationships with their peers, especially the female students experience lower levels of anxiety and depression. Lin et.al. (2008) have determined in a study they carried out that the decreased satisfaction in peer group and the depression state of adolescents are related.

Whereas in another study (Kocovski and Endler, 2000), it was determined that self-regulation predicts social anxiety. In another study examining the relationships between cognitive self-regulation processes and depression symptoms (Scott et.al., 2008), it was determined that whereas academic self-sufficiency

was positively related with goal orientation, goal importance and goal activation; it was negatively related with depression symptoms.

The decrease of depression and anxiety with increasing peer relations is in accordance with the findings of other studies (Allen et.al., 2007; La Greca and Harrison, 2005; La Greca and Lopez, 1998; Vernberg, Abwender, Ewell, and Berry, 1992; Demir, Baran, and Ulusoy, 2005). It is also reported in many studies that self-regulation is negatively related with depression and somatization (Strauman, 2002; Martin et.al., 1996, Aspinwall and Taylor 1997). In conclusion, explanations regarding the effectiveness of social and emotional learning in the protection of the mental health of students have been validated (Payton et.al., 2000; Elias, 2003; Cohen, Onunaku, Clothier, and Poppe, 2005).

Since social and emotional learning is affective in decreasing the mental symptoms and protecting the mental health of the student, social and emotional learning needs and skills should be taken into account especially in the field of Mental Health and Psychological Guidance. It can be stated that the inclusion of social and emotional learning needs of students in the school guidance services in our country within the framework of preventive guidance, will be effective in the protection of the mental health of students. Lack of peer relations and self-regulation skills may be thought to be the precursors of mental health problems. Hence, it may be useful to determine those with insufficient peer relations and self-regulation skills at schools and plan preventive guidance activities.

REFERENCE

Allen, J. P., Porter, M. R., McFarland, F. C., Marsh, P., & McElhaney, K. B. (2005). The two faces of adolescents' success with peers: Adolescent popularity, social adaptation, and deviant behavior. *Child Development, 76*(3), 747-760.

Allen, J. P. et. al. (2007). The relation of attachment security to adolescents' paternal and peer relationships, Depression and externalizing behavior. *Child Development, 78*(4), 1222-1239.

Aspinwall, L. G. & Taylor, S. E. (1997). A stitch in time: Self-regulation and proactive coping. *Psychological Bulletin, 121*(3), 417-436.

Cheng, S. T., Cheung, K. C. C., & Cheung, C. K. (2008). Peer victimization and depression among Hong Kong Adolescents. *Journal of Clinical Psychology, 64*(6), 766-776.

Cohen, J., Onunaku, N., Clothier, S., & Poppe, J. (2005). *Helping young children succeed: Strategies to promote early childhood social and emotional development*. (Research and Policy Report). Washington, D.C.: National Conference of State Legislatures.

Coryn, C. L. S., Spybrook, J. K., Evergreen, S. D. H., & Blinkiewicz, M. V. (2009). Development and evaluation of the Social-Emotional Learning Scale. *Journal of Psychoeducational Assessment*, *27*(3), 283-295.

Derogatis, L. R. (1993). *The Brief Symptom Inventory- BSI administration, scoring, and procedures manual* (4th Edition). Minnesota: National Computer Systems.

Durlak, J. & Weissberg, R. (2010). Social and emotional learning programmes that work. In R. Slavin (Ed.). *Better: Evidence-based education. Social-emotional learning*, *2*(2), 4-5, York: Instute for Effective Education, University of York.

Elias, M. J. (2003). *Academic and social-emotional learning*. Geneva: International Academy of Education and the International Bureau of Education.

Haslam, J. (2010). Bring evidence into the classroom. In R. Slavin (Ed.). *Better: Evidence-based education. Social-emotional learning*, *2*(2), 22-23, York: Institute for Effective Education, University of York.

Illinois Violence Prevention Authority. (2011). *SEL and the Illinois Children's Mental Health Act.* www.ivpa.org

Green, S. B. & Salkind, N. J. (2008). *Using SPSS for Windows and Macintosh. Analyzing and understanding data*. (5th Edition). New Jersey: Pearson, Prentince Hall.

Kabakçı, Ö. M. & Korkut Owen, F. (2010). Sosyal Duygusal Öğrenme Becerileri Ölçeği geliştirme çalışması. [A study of development to Social Emotional Learning Skills Scale]. *Eğitim ve Bilim*, *35*(157), 152-166.

Kocovski, N. L., & Endler, N. S. (2000). Social anxiety, self-regulation, and fear of negative evaluation. *European Journal of Personality, 14*, 347-358.

La Greca, A. M. & Lopez, N. (1998). Social anxiety among adolescents: Linkages with peer relations and friendships. *Journal Of Abnormal Child Psychology*, *26*(2), 83-94.

La Greca, A. M. & Moore Harrison, H. (2005). Adolescent peer relations, friendships, and romantic relationships: Do they predict social anxiety and depression? *Journal of Clinical Child & Adolescent Psychology*, *34*(1), 49-61.

Lin, H. C., Tang, T. C., Yen, J. Y., Ko, C. H., Huang, C. F., Liu, S. C., & Yen, C. F. (2008). Depression and its association with self-esteem, family, peer and school factors in a population of 9586 adolescents in southern Taiwan. *Psychiatry and Clinical Neurosciences, 62,* 412-420.

Luo, J., Gao, W., & Zhang, J. (2011). The influence of school relationships on anxiety and depression among Chinese adolescents whose parents are absent. *Social Behavior and Personality, 39*(3), 289-298.

Norris, J. A. (2003). Looking at classroom management through a social and emotional learning lens. *Theory Into Practice*, *42*(4), 313-318.

Martin, T. R. et. al. (1996). Personality correlates of depression and health symptoms: A test of a self-regulation model. *Journal of Research in Personality*, *30*(2), 264-277.

O'Brennan, L. M., Bradshaw, C. P., & Sawyer, A. L. (2009). Examining developmental differences in the social-emotional problems among frequent bullies, victims, and bully/victims. *Psychology in the Schools, 46*(2), 100-115.

PAWS (2009). *PASW Statistics 18 core system user's guide*. Chicago, IL: SPSS Inc.

Payton, J. W., Wardlaw, D. M., Graczyk, P. A., Bloodworth, M. R., Tompsett, C. J., & Weissberg, R. P. (2000). Social and emotional learning: A framework for promoting mental health and reducing risk behaviours in children and youth. *Journal of School Health*, *70*(5), 179-185.

Payton, J., Weissberg, R. P., Durlak, J. A., Dymnicki, A. B., Taylor, R. D., Schellinger, K. B., & Pachan, M. (2008). *The positive impact of social and emotional learning for kindergarten to eighth-grade students: Findings from three scientific reviews.* Chicago, IL: Collaborative for Academic, Social, and Emotional Learning.

Scott, W. D., Dearing, E., Reynolds, W. R., Lindsay, J. E., Baird, G. L., & Hamill, S. (2008). Cognitive self-regulation and depression: Examining academic self-efficacy and goal characteristics in youth of a northern plains tribe. *Journal of Research on Adolescence, 18*(2), 379-394.

Seah, S. L. & Ang, R. P. (2008). Differential correlates of reactive and proactive aggression in Asian adolescents: Relations to narcissism, anxiety, schizotypal traits, and peer relations. *Aggressive Behavior, 34,* 553-562.

Strauman, T. J. (2002). Self-regulation and depression. *Self and Identity, 1*(2), 151-157.

Şahin, N. H., Durak Batıgün, A., & Uğurtaş, S. (2002). Kısa Semptom Envanteri (KSE): Ergenler için kullanımının geçerlik, güvenirlik ve faktör yapısı [The validity, reliability and factor structure of the Brief Symptom Inventory (BSI)]. *Türk Psikiyatri Dergisi*, *13*(2), 125-135.

Tabachnick, B. G. & Fidell, L. S. (2007). *Using multivariate statistics* (5th Edition). Boston: Allyn and Bacon.

Totan, T. (2011). Problem çözme becerileri eğitim programının ilköğretim 6. sınıf öğrencilerinin sosyal duygusal öğrnme becerileri üzerine etkisi [The effect of problem solving skills training program on the social and emotional learning abilities of 6th grade students]. Unpublished doctoral dissertation, Dokuz Eylül University, Institute of Educational Sciences, İzmir, Turkey.

Türnüklü, A. (2004). Okullarda sosyal ve duygusal öğrenme [Social and emotional learning in schools]. *Kuram ve Uygulamada Eğitim Yönetimi*, *37*(10), 136-152.

Schonert-Reichl, K. & Hymel, S. (2007). Educating the heart as well as the mind social and emotional learning for school and life success. *Education Canada*, *47*(2), 20-25.

Özcan Demir, N., Görgün Baran, A., & Ulusoy, D. (2005). Türkiye'de ergenlerin arkadaş-akran grupları ile ilişkileri ve sapmış davranışlar: Ankara örneklemi [Relations of adolescents with their peer groups-friends in Ankara and deviated behaviors] *Bilig*, *32*, 83-108.

Vernberg, E. M., Abwender, D. A. Ewell, K. K., & Berry, S. H. (1992). Social anxiety and peer relationships in early adolescence: A prospective analysis. *Journal of Clinical Child & Adolescent Psychology*, *21*(2), 189-196.

Zins, J. E., Elias, M. J., & Greenberg, M. T. (2003). Facilitating success in school and in life through and emotional learning. *Perspectives in Education*, *21*(4), 59-60.