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Assessment of Social Problem Solving with Respect to Emotional Intelligence

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Abstract
This study was aimed at analyzing the relationship between emotional intelligence and social problem solving skills. The sample consisted of 774 (366 females; 408 males) pre-service teachers who study different departments of the Faculties of Education and Technical Education, and department of physical education and sports teaching of School of Physical Education and Sports at Mugla Sıtkı Kocman University. Emotional intelligence levels and social problem solving skills of pre-service teachers were measured using the Bar-On Emotional Quotient Inventory (Bar-On, 1997) and Interpersonal Problem Solving Inventory (Cam & Tumkaya, 2007). Pearson product-moment correlation analysis and structural equation modeling were employed to analyze data. Emotional intelligence was found to be significantly correlated with social problem solving skills.

Keywords: emotional intelligence, social problem solving skills, pre-service teachers, structural equation modeling

Emotion is an integral part of human functioning starting with the birth. Infants are born with a fully formed amygdala which allows emotions to be experienced and emotional memories to be created and retained (Power & Dalgleish, 1997). While emotional reactions are believed to provide clues about the relations of people with their changing environment by some theorists (Lazarus, 1991) others think that emotions come into being as constructs dependent on the situation such as happiness or fear. On the other hand, some other authors deal with emotions on a continuum stretching from one extreme to the other, such as positive and negative affect (Power & Dalgleish, 1997). Though it is natural that people may have different opinions about the conceptualization of emotion, there is a tendency to view it as an individual's "experience and expression of affective information" (Greenberg, 2002). According to Panksepp (2000) as far as major adaptive problems are concerned, emotion has an important role to play in terms of coordination of behavioral, physiological, affective and cognitive responses.

There has been an idea for a long time that there are many types of intelligence apart from IQ and intelligence types are vital in the development of life skills and opportunities in life. For instance, there is a term "social intelligence" coined by Thorndike (1921) to mean displaying wise actions while interacting with people. Wechsler (1940) argued that some of the important determiners of success in life are abilities which are not intellectual. More recently, Gardner (1983) came up with the idea that in addition to cognitive intelligence, there are some other intelligences possessed by human beings such as inter-personal, intra-personal, physical, visual, special, artistic, environmental and kinesthetic, which led to concept of multiple intelligences. Gardner emphasized that inter-personal and intra-personal intelligences are not less important than IQ. However, the term "emotional intelligence" was first used by Salovey and Mayer (1990) to refer to a type of intelligence employed to observe one's own and other people's feelings and emotions, to evaluate and use them to direct one's thinking and action.

One of the most important functions of emotional intelligence is to foster thought by conducting proper reasoning activities about emotions and how wisely emotions are used. Emotional intelligence has been defined as "Being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize and to hope" (Goleman, 1996). Goleman's definition of emotional intelligence is the most comprehensive one and its main focus is on performance. In its scope, there are many elements to be considered such as self-

awareness; emotional resilience; motivation/drivers; empathy/sensitivity; influence/rapport; intuitive redecisions; conscientiousness.

There are many different ways through which emotional intelligence has been operationalized reported in the literature. It is widely believed that the term emotional intelligence can be quite perplexing without proper conceptualization and explanation of the concept (Mayer, Salovey, & Caruso, 2008). In early research of emotional intelligence, the main focus of the conceptualization of the concept was the utilization of an individual's capabilities to comprehend their own and/or other people's experience (Salovey & Mayer, 1990). With its growing popularity in the field, the study of the concept of emotional intelligence started to include the investigation of personality traits and tendencies and they were regarded as indispensable elements of the definition of emotional intelligence. Some of these are assertiveness, persistence, adaptability, and impulsivity (Bar-On, 1997; Goleman, 1996; Petrides & Furnham, 2003). Moreover, due to its nature, emotional intelligence needs to be viewed as different from other intelligence types (Mayer, Salovey, & Caruso, 2008) such as social intelligence, personal intelligence, cultural intelligence, social competence, social effectiveness, emotional competence, and interpersonal competence.

A new model of emotional intelligence was suggested by Bar-On (2005) and this new model proposes a theoretical basis to be used to evaluate the various aspects and conceptualization of emotional intelligence. In this model, the extent to which we can understand and express ourselves depends on many different emotional and social competencies, skills and factors all of which somehow relate to emotional-social intelligence. Bar-On (2005) states that there are many similarities between this new model of emotional and social intelligence and earlier models which require at least one of these: (a) to be able to recognize, understand, and express emotions and feelings; (b) to be able to understand how others feel and relate with them; (c) to be able to manage and control emotion; and (d) to be able to manage change, adapt, and solve problems of a personal and interpersonal nature and generate positive effects and be self-motivated.

According to Baron (2005)'s model, people who have emotional and social intelligence can understand and express themselves, understand others and respond them appropriately, and tackle with the demands, challenges and stresses of daily life. When considered from intrapersonal dimension, emotional and social intelligence means knowing who you are and understanding what your strengths and weaknesses are and being able to express your feelings and thoughts in a non-destructive manner. On the other hand, when

considered from interpersonal dimension, in order to be emotionally and socially intelligent, you need to have the ability to understand others' feelings, emotions and needs and to establish good relations. Hence, emotional and social intelligence can help you to adapt to personal, social and environmental changes.

With the efforts of Goleman (1996, 1998) the concept of emotional intelligence and its main components, problem solving, conflict resolution, and empathy have been becoming gradually more popular. Goleman points out these variables in social and emotional domains are as effective as cognitive inputs in determining the effectiveness of learning.

In order to be able to understand the concept of problem solving, first thing to be explained should be the term "problem". Problem can defined as a situation or task to be handled for smooth functioning (D'Zurilla & Goldfried, 1971). When a person feels disturbed by a situation or a situation hinders him/her from reaching his/her goals, it can be viewed as a problem. Though there are many different definitions of problem provided in the literature, it is possible to define it as a difficulty to overcome or a question to solve. The best strategy to be adopted in such situations is problem solving. The strategy of problem solving is capitalized on to find solution to a problematic situation so that the stress caused by it can be reduced (D'Zurilla, Nezu, & Maydeu-Olivares, 2004).

There is a series of cognitive, emotional, and behavioral activities involved in problem solving to get rid of a difficulty disturbing a person (Heppner & Krauskopf, 1987). That is, problem solving is the sum of activities performed to eliminate things adversely affecting one's life. Yet, problem solving processes are dependent on the nature of the problem. That is, they vary from one problem to another. Its efficiency is related to people's perceptions of their problem solving competency, whether they see themselves competent enough to tackle with interpersonal and social problems (D'Zurilla & Goldfried, 1971; Heppner & Krauskopf, 1987; Nezu & D'Zurilla, 1989).

Social problem solving serves the function of a mediator used to deal with stressors and problems of daily life (D'Zurilla & Nezu, 1982; Nezu & D'Zurilla, 1989). Effective problem solving can enable an individual to minimize negative affective experiences of daily life. Saarni (1999) argues that social and emotional developments cannot be separated from each other. There are two main components of problem solving process (Shewchuck, Johnson, & Elliott, 2000): problem orientation and problem solving style. Problem orientation is a kind of motivational process involving (a) viewing a problems as a challenge rather than a threat, (b) positive appraisal of one's own problem solving capacity, (c) anticipation of

positive outcomes from problem solving process, and (d) striving for solving problems rather than overlooking them (Chang & D'Zurilla, 1996). The main contribution of problem orientation is its motivational function in social problem solving.

Problem solving style provides cognitive and behavioral activities helping a person to understand problems and find solutions. Based on these, a five-dimensional social problem solving model was developed. This model has two different problem orientation dimensions (positive and negative) and three different problem solving styles (rational problem solving, impulsivity/carelessness style and avoidance style). People with positive problem orientation tend to see a problem as a challenge and believe that problems are present to solve and think that they can solve the problem successfully. On the contrary, people with negative problem orientation are prone to view a problem as a threat to well-being, believe that problems are very difficult to solve, have doubts about their problem solving self-efficacy and easily become distressed when confronted with a problem. On the other hand, the general characteristics of rational problem solving are rationality, deliberateness and systematic application of effective problem solving skills. Those of impulsivity/carelessness style are active attempts for the application of effective problem solving skills; yet, these attempts are not well-planned. Finally, the main characteristics of avoidance style are putting off the actions, passivity and dependency (Chang, D'Zurilla, & Sanna, 2004; D'Zurilla & Chang, 1995; D'Zurilla, Nezu, & Maydeu-Olivares, 2002; Maydeu-Olivares & D'Zurilla, 1996).

Problem solving proper means finding the best way to solve a problem by applying problem solving strategies and techniques. It is widely assumed that there is a strong connection between problem orientation and mental health. Effective problem orientation may lead to low depression and elimination of hopelessness, health problems etc. (D'Zurilla, Chang, Nottingham, & Faccini, 1998; Elliot & Marmarosh, 1994; Elliot, Herrick, MacNair, & Harkins, 1994).

In this way, the main objective of the present study was to determine whether social problem solving skills was related to emotional intelligence. The results of the study are thought to give important information about the formation of social problem solving skills in pre-service teachers.

Method

Model

This study is a quantitative and relational study aimed at examining the relationship relationship between emotional intelligence and social problem-solving skills. The data were collected by Bar-On Emotional Quotient Inventory Bar-On (1997) and Interpersonal Problem Solving Inventory (Cam & Tumkaya, 2007).

Participants

In the study, the data were collected by randomly selecting from the Faculties of Education and Technical Education, and department of physical education and sports teaching of School of Physical Education and Sports at Mugla Sıtkı Kocman University. The participants were 774 pre-service teachers (366 females; 408 males). The mean age of the participants was 23.34 years, with a standard deviation of 2.38 years.

Instruments

Bar-On Emotional Quotient Inventory (EQI). The EQI developed by Bar-On (1997) adapted to Turkish by Acar (2001) was used for emotional intelligence measurement. The original EQI form is a 133-item self-report inventory. Items are declarative statements phrased in the first-person singular. Respondents are asked to indicate the degree to which the statement accurately describes them on a 5-point scale (1=not true of me, 5=true of me). Items are summed to yield a total score, which reflects overall emotional intelligence; scores on 5 higher-order composite dimensions. The EQI scores are related to general psychosocial adjustment (Dawda, & Hart, 2000). The Turkish form of the EQI is an 88-item measure that provides an overall score of EQI based on five composite scales. Cronbach alpha coefficients were .92 for overall score, and .83 for intrapersonal intelligence, .77 for interpersonal intelligence, .65 for adaptability, .73 for stress management, and .75 for general mood (Acar, 2001). In this study, Cronbach's alphas for the subscale of the EQI were .89 for overall score, and .85 for intrapersonal intelligence, .78 for interpersonal intelligence, .69 for adaptability, .77 for stress management, and .76 for general mood.

Interpersonal Problem Solving Inventory (IPSI). This inventory was developed by Cam and Tumkaya (2007) as a tool for measuring problem-solving approach and skills among university students between the ages of 18-30 years old. The inventory consists of five

subscales and a total of 50 items. The item ratings vary between 1 (strongly disagree) and 5 (strongly agree). Higher scores obtained for each subscale indicates that the characteristic about interpersonal problem solving is higher. In factor analysis study of the inventory, a total of five factors which explained a total of 38.38% of the variance related with interpersonal problem solving were obtained. These factors were approaching problems in a negative way, constructive problem solving, lack of self-confidence, unwillingness to take responsibility, and insistent-persevering approach. The number of items in each subscale was 16, 16, 7, 5 and 6 respectively. The correlation coefficient calculated with total scores of the subscales varied between .22 and .74. Internal consistency (Cronbach's alpha) coefficients of the subscale scores of the inventory were approaching problems in a negative way =.91, constructive problem solving =.88, lack of self-confidence =.67, unwillingness to take responsibility =.74, and insistent-persevering approach =.70. Test re-test correlation values on 60 students in a four week interval showed .89, .82, .69, .76, and .70 for the subscales, respectively. In this study, Cronbach's alpha for the subscales were calculated .86, .78, .67, .79, and .72.

Data Analysis

In this study, the analysis of relationship between emotional intelligence and social problem solving skills was performed by Pearson product-moment correlation analysis and structural equation modeling. Structural equation modeling is a statistical technique for testing and estimating causal relations using a combination of statistical data and qualitative causal assumptions. The model is tested against the obtained measurement data to determine how well the model fits the data. The causal assumptions embedded in the model often have falsifiable implications which can be tested against the data. Among the strengths of structural equation modeling is the ability to construct latent variables: variables which are not measured directly, but are estimated in the model from several measured variables each of which is predicted to "tap into" the latent variables. This allows the modeler to explicitly capture the unreliability of measurement in the model, which in theory allows the structural relations between latent variables to be accurately estimated. Factor analysis, path analysis and regression all represent special cases of structural equation modeling (Kline, 2005). In this study, the model was created by testing the relationships among the emotional intelligence and social problem solving skills variables using structural equation modeling.

Results

An analysis of the relationship between emotional intelligence and social problem solving skills of pre-service teachers was performed using Pearson product-moment correlation analysis and structural equation modeling. Results are presented below.

Table 1

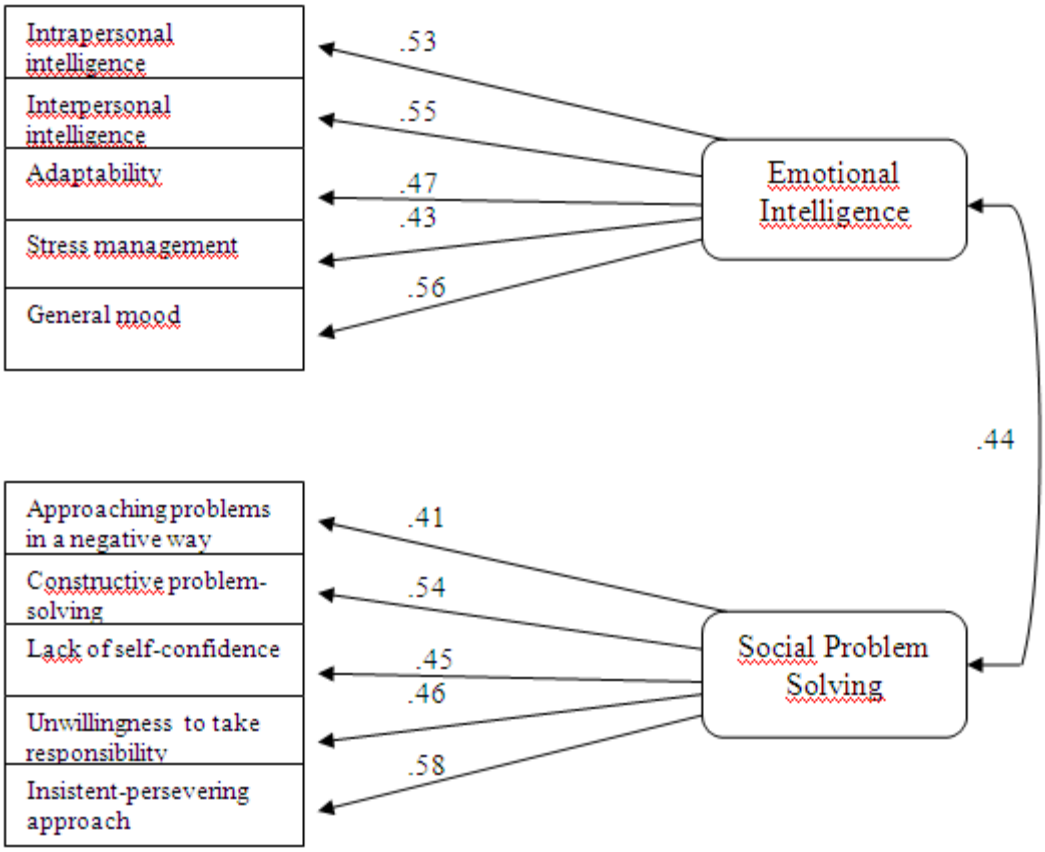
The relationship between emotional intelligence and social problem solving skills

	Approaching problems in a negative way	Constructive problem-solving	Lack of self-confidence	Unwillingness to take responsibility	Insistent-persevering approach
Intrapersonal intelligence	-.30**	.44**	-.33**	-.39**	.31**
Interpersonal intelligence	-.38**	.47**	-.36*	-.40**	.34**
Adaptability	-.39**	.42**	-.34**	-.40**	.30**
Stress management	-.29**	.45**	-.27**	-.34**	.35**
General mood	-.37**	.46**	-.40**	-.30**	.33**

Although there are a negative relationship between some dimensions of social problem solving (approaching problems in a negative way, lack of self-confidence, and unwillingness to take responsibility) and emotional intelligence, subdimensions of social problem solving (constructive problem solving and insistent-persevering approach) is positively related to sub dimensions of emotional intelligence (intrapersonal intelligence, interpersonal intelligence, adaptability, stress management, and general mood).

Figure 1

Path diagram of significant predictors of emotional intelligence



χ^2= 354.19, df=119, χ^2/df= 2.97, p=.00, RMSEA=.09, GFI=.96, AGFI=.88, NFI=.92, NNFI=.93, CFI=.95, IFI=.97; RMR=.07; SRMR=.07.

According to the data obtained the total points of emotional intelligence predict the subdimensions of emotional intelligence between .43 and .56. The total points of social problem solving predict the subdimensions of social problem solving between .41 and .58. Moreover there is a relationship of .44 between the total points of emotional intelligence and social problem solving skills. Figure 1 shows whether the variables are consistent or not is analyzed. As can be seen in Figure 1, the data obtained fit well model. Path coefficients ranged from 0.41 to 0.58. Path coefficients with absolute values less than 0.10 could indicate a "small effect", values around 0.30 could suggest a "typical" or "medium effect", and a "large effect" could be indicated by coefficients with absolute values ≥0.50 (Kline, 2005). In this study, all of these values were higher than 0.30.

Discussion

At the end of this study, it was found that there was a significant relationship between emotional intelligence and social problem solving skills. According to the results of this

study, there were a negative relationship between some dimensions of social problem solving (approaching problems in a negative way, lack of self-confidence, and unwillingness to take responsibility) and emotional intelligence, sub-dimensions of social problem solving (constructive problem-solving and insistent-persevering approach) is positively related to sub dimensions of emotional intelligence (intrapersonal intelligence, interpersonal intelligence, adaptability, stress management, and general mood).

One's ability to regulate emotions has impacts on handling the problems encountered (Aldea & Rice, 2006). Emotional intelligence helps to recognize the meanings of emotions and their relationships and enables to find solutions by reasoning based on them (Mayer, Caruso, & Salovey, 1999). In literature, there is much evidence showing the positive correlation between emotional intelligence and problem solving skills (Cooper & Sawaf, 2000; Goleman, 2006; Guler, 2006). More positive approaches to problems can be adopted by individuals who are conscious of their emotions and keep them under control, so that they can solve them more easily. Effective use of emotional intelligence results in better communication and better handling of crisis situations.

Matthew and Zeidner (2001) state that on the basis of emotional intelligence lies the ability of coping with stress-inducing confrontations. According to Gohm, Corse, and Dalsky (2005) emotional intelligence can be of great value in reducing stress for some people but not for others. Ciarrochi, Deane, and Anderson (2002) and Salovey, Stroud, Woolery, and Epel (2002) reported some evidence indicating the moderating effect of emotional intelligence between stress and mental health. Furnham, Petrides, and Spencer-Bowdage (2002) stated that healthy social problem solving and coping styles are related to emotional intelligence. According to Bar-On (1997) emotional intelligence may have some important effects on dealing with environmental demands and pressures and accordingly psychological well-being.

People having better emotional intelligence may have improved psychological health as they can find stronger social support by expressing their emotions more appropriately (Salovey, Bedell, Detweiler, & Mayer, 2000). For instance, high emotional intelligence may lead to a less threatening perception of stressors and use of active coping strategies more than passive ones (Matthew & Zeidner, 2001; Salovey, Stroud, Woolery, & Epel, 2002). Social problem solving specifically relates to use of conscious, rational and effortful cognitive-affective-behavioral processes in finding solutions to real life problems (Chang, D'Zurilla, & Sanna, 2004; D'Zurilla & Chang, 1995; D'Zurilla, Nezu, & Maydeu-Olivares, 2002).

Possessing more sophisticated problem solving skills helps to get rid of negative effects of stress (Bonner & Rich, 1988; Haugh, 2006; Nezu, Wilkins, & Nezu, 2004).

Emotional information can be of great importance to individuals wanting to understand their reactions to different sources of stress (Alumran & Punamäki, 2008; Baker & Berenbaum, 2007; Greenberg, 2002). Emotional information may provide important cues for individuals to determine an existing problem and procedure to be followed to deal with it (Heppner & Krauskopf, 1987). Ability to regulate emotions affects ability to handle a problem (Aldea & Rice, 2006). Higher emotional intelligence may allow people to create many perspectives for the solution of a problem (Salovey, Bedell, Detweiler, & Mayer, 2000). Moreover, with the help of high emotional intelligence, stress can be managed more easily and decisions can be made more reasonably and recovery from stressful experiences can be faster (Bar-On, 2001; Bar-On & Parker, 2000; Mayer, Salovey, & Caruso, 2000). Some authors claim that various viewpoints can be created by emotions to solve specific problems. Different emotions lead to formation of different information handling styles. Happy moods can be more conducive to the development of mental sets that help to find more intuitive and comprehensible solutions. On the other hand, sad moods may result in relatively slower process of problem solution (Palfai & Salovey, 1993).

Emotionally intelligent people can more easily put their thoughts in order of priority and make use of multiple viewpoints (Mayer & Salovey, 1997). Emotionally intelligent people are expected to be involved in more deep acting by shifting their moods from negative to positive so that they improve their persistency while dealing with difficult problems (Carmeli, 2003). Many psychologists, counselors, educators, mental health professionals emphasized the effectiveness of emotional intelligence in regulating cognitive problems and designing social programs for children, adolescents and young people. Variables of emotional intelligence and educational achievement of people from any age group are claimed to be in close relationship (Salovey et al., 1995).

People having higher level of emotional intelligence are known to be better in resolving conflicts and social problems and understanding others' emotions. Such people are generally more optimistic, flexible, and can better tackle with social problems and stressful situations (Bar-On, 1997). They can describe their emotions and others' emotions better and in this way better direct their adaptive style (Taylor, Parker, & Bagby, 1999).

According to these findings the social problem solving skills of pre-service teachers increase as the emotional intelligence increase. It can be argued that the emotional intelligence of pre-service teachers make contributions to finding solutions to the social problems they encounter by perceiving them. Finally, the social problem-solving skills of pre-service teachers can be increased by improving his/her emotional intelligence. As a result, in psychological counseling and guidance studies, it would be appropriate to include applications about effective social problem solving skills to increase the level of emotional intelligence. Further research is needed to enhance our understanding of the interrelationships of emotional intelligence, social problem solving skills, and effectiveness of pre-service teachers. An important area of future research concerns carefully designing and evaluating the effects of intervention on emotional intelligence in enhancing social problem solving skills and interpersonal effectiveness.

This study should be evaluated with two important limitations. First, the study group consists of only pre-service teachers and is small. Therefore, it hinders extensive evaluation and generalization. Second, the study is realised with pre-service teachers from only Mugla Sıtkı Kocman University. For further studies, more extensive researches also including other student populations and universities. The results of the study should be interpreted in respect of these limitations.

References

Acar, F. T. (2001). *The relationship of emotional intelligence with leadership behaviors towards human and task*. (Unpublished Doctoral dissertation). Social Sciences Institute of Istanbul University, Istanbul.

Aldea, M. A., & Rice, K. G. (2006). The role of emotional dysregulation in perfectionism and psychological distress. *Journal of Counseling Psychology*, *53*, 498-510.

Alumran, J., & Punamäki, R. (2008). Relationship between gender, age, academic achievement, emotional intelligence, and coping styles in Bahraini adolescents. *Individual Differences Research, 6,* 104-119.

Baker, J. P., & Berenbaum, H. (2007). Emotional approach and problem-focused coping: A comparison of potentially adaptive strategies. *Cognition and Emotion*, *21,* 95-118.

Bar-On, R. (1997). *Bar-On Emotional Quotient Inventory: Technical manual*. Toronto, Ontario, Canada: Multi-Health Systems.

Bar-On, R. (2001). Emotional intelligence and self-actualization. In J. Ciarrochi, J.P. Forgas, and J.D. Mayer (Eds.), *Emotional intelligence in everyday life: A scientific inquiry* (pp. 82-97). New York: Psychology Press.

Bar-On, R., & Parker, J. D. (2000). *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace*. San Francisco, CA: Jossey Bass.

Bar-On, R. (2005). The Bar-On Model of Emotional-Social Intelligence. In P. Farnandez Berrocal and N. Extremera (Guest Editors). Special issue on emotional intelligence. *Psichotema*, *17*.

Bonner, R. L., & Rich, A. R. (1988). Negative life stress, social problem-solving self-appraisal, and hopelessness: Implications for suicide research. *Cognitive Therapy and Research*, *12,* 549-556.

Cam, S., & Tumkaya, S. (2007). Developing the Interpersonal Problem Solving Inventory (IPSI): the validity and reliability process. *Turkish Psychological Counseling and Guidance Journal, 28,* 95-111.

Carmeli, A. (2003). The relationship between emotional intelligence and work attitudes, behavior and out-comes. *Journal of Managerial Psychology, 18,* 788-813.

Chang, E. C., & D'Zurilla, T. J. (1996). Relations between problem orientation and optimism, pessimism, and trait affectivity: a construct validation study. *Behaviour Research & Therapy, 34,* 185-194.

Chang, E. C., D'Zurilla, T. J., & Sanna, L. J. (2004). *Social problem solving: theory, research, and training*. American Psychological Association, Washington, DC.

Ciarrochi, J., Dean, F. P., & Anderson, S. (2002). Emotional intelligence moderates the relationship between stress and mental health. *Personality and Individual Differences*, *32,* 197-209.

Cooper, R.K., & Sawaf, A. (1997). *Executive EQ: Emotional intelligence in leadership and organizations.* New York: Berkeley Publishing Group.

Dawda, D., & Hart, S. D. (2000). Assessing emotional intelligence: Reliability and validity of the Bar-On Emotional Quotient Inventory (EQ-I) in university students. *Personality and Individual Differences*, *28*, 797- 812.

D'Zurilla, T. J., & Goldfried, M. R. (1971). Problem solving and behavior modification. *Journal of Abnormal Psychology, 78,* 107-126.

D'Zurilla, T. J., & Nezu, A. M. (1982). Social problem solving in adults. In P.C. Kendall (Ed.), *Advances in cognitive-behavioral research and therapy* (pp. 201-274), New York: Academic Press.

D'Zurilla T. J, & Chang E. C. (1995). The relations between social problem solving and coping. *Cognitive Therapy and Research, 19,* 547-562.

D'Zurilla, T., Chang, E. C., Nottingham, E. J., & Faccini, L. (1998). Social problem-solving deficits and hopelessness, depression, and suicidal risk in college students and psychiatric inpatients. *Journal of Clinical Psychology*, 54, 1091-1107.

D'Zurilla, T. J., Nezu, A. M., & Maydeu-Olivares, A. (2002). *Social Problem-Solving Inventory-Revised (SPSI-R): Technical manual*. North Tonawanda, NY: Multi- Health Systems.

D'Zurilla, T. J., Nezu, A. M., & Maydeu-Olivares, A. (2004). Social problem solving: Theory and assessment. In E.C. Chang, T.J. D'Zurilla, & L. J. Sanna (Eds.), *Social problem solving: theory, research, and training*, (pp.11-27), Washington, DC: American Psychological Association.

Elliott, T.R., Herrick, S.M., MacNair, R.R., & Harkins, S.W. (1994). Personality correlates of self-appraised problem solving ability: problem orientation and trait affectivity. *Journal of Personality Assessment*, *63*, 489–505.

Elliott, T.R., & Marmarosh, C.L. (1994). Problem-solving appraisal, health complaints, and health-related expectancies. *Journal of Counseling & Development*, *72*, 531-537.

Furnham, A., Petrides, K.V., & Spencer-Bowdage, S. (2002). The effects of different types of social desirability on the identification of repressors. *Personality and Individual Differences*, *33*, 119-130.

Gardner, H. (1983). *Frames of mind: the theory of multiple intelligences*, New York, Basic Books.

Gohm, C. L., Corser, G. C., & Dalsky, D. J. (2005). Emotional Intelligence under stress: useful, unnecessary, or irrelevant? *Personality and Individual Differences*, *39,* 1017-1028.

Goleman, D. (1996). *Emotional intelligence: Why it can matter more than IQ*. London, Bloomsbury.

Goleman, D. (1998). *Working with emotional intelligence*. New York: Bantam Books.

Goleman, D. (2006). *Social intelligence: The new science of human relationships*. New York: Bantam Dell.

Greenberg, L. (2002). *Emotion-focused therapy*. Washington, DC: America Psychological Association.

Guler, A. (2006). *The study of the relationship between the levels of emotional intelligence and problem-solving skills of the teachers in primary schools*. (Unpublished MA Thesis). Social Sciences Institute of Yeditepe University, Istanbul.

Haugh, J. A. (2006). Specificity and social problem solving: Relation to depressive and anxious symptomology. *Journal of Social and Clinical Psychology*, *25*, 392-403.

Heppner, P. P., & Krauskopf, C. J. (1987). An information-processing approach to personal problem solving. *The Counseling Psychologist*, *15,* 371-447.

Kline, R. B. (2005). *Principle and practice of structural equation modeling* (2 nd ed.). New York: Guilford Press.

Lazarus, R. S. (1991). *Emotion and adaptation.* New York: Oxford University Press.

Matthew, G., & Zeidner, M. (2001). Emotional intelligence, adaptation to stressful encounters & health outcomes. In R. Bar-On & J.D.A. Parker (Eds), *The handbook of emotional intelligence*, Jossey-Bass.

Maydeu-Olivares, A., & D'Zurilla, T. J. (1996). A factor-analytic study of the Social Problem-Solving Inventory: an integration of theory and data. *Cognitive Therapy and Research*, *20,* 115-133.

Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey and D. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 3-31), New York: Basic Books.

Mayer, J. D., Caruso, D. R., & Salovey, P. (1999). Emotional intelligence meets traditional standards for intelligence. *Intelligence, 27,* 267-298.

Mayer, J. D., Salovey, P., & Caruso, D.R. (2008). Emotional intelligence: New ability or eclectic traits? *American Psychologist*, *63,* 503-517.

Mayer, J., Salovey, P., & Caruso, D.R. (2000). Emotional intelligence as zeitgeist, as personality, and as a mental ability. In Bar-On, R, & J. D. Parker (Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace* (pp. 92-117). San Francisco, CA: Jossey Bass.

Nezu, A. M., & D'Zurilla, T. J. (1989). Social problem solving and negative affective conditions. In P.C. Kendall & D. Watson (Eds.), *Anxiety and depression: Distinctive and overlapping features* (pp. 285-315). New York: Academic Press.

Nezu, A. M., Wilkins, V. M., & Nezu, C. M. (2004). Social problem solving, stress, and negative affective conditions. In E.C. Chang, T.J. D'Zurilla, & L.J. Sanna (Eds.), *Social problem solving: Theory, research, and training* (pp.49-65). Washington, DC: American Psychological Association.

Palfai, T. P., & Salovey, P. (1993). The influence of depressed and elated mood on deductive and inductive reasoning. *Imagination, Cognition, and Personalitiy*, *13*, 57-71.

Panksepp, J. (2000). Emotions as natural kinds within the mammalian brain. In Lewis, M. and Haviland-Jones, J. (eds), *Handbook of emotions*, (pp. 137-156). London: Guilford Press.

Petrides, K. V., & Furnham, A. (2003). Trait emotional intelligence: behavioral validation in two studies of emotion recognition and reactivity to mood induction. *European Journal of Personality*, *17*, 39-57.

Power, M., & Dalgleish, T. (1997). *Cognition and emotion: From order to disorder.* Hove: Psychology Press.

Saarni, C. (1999). *The development of emotional competence*. New York: The Guilford Press.

Salovey, P., & Mayer, J.D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality*, *9,* 185-211.

Salovey, P., Mayer, J. D., Goldman, S., Turvey, C., & Palfai, T. P. (1995). Emotional attention, clarity, and repair: Exploring emotional intelligence using the trait metamood scale. In J. W. Pennebaker (Ed.), *Emotion, disclosure, and health* (pp. 125-154). Washington DC: American Psychological Association.

Salovey, P., Bedell, B. T., Detweiler, J. B., & Mayer, J. D. (2000). Current directions in emotional intelligence research. In M. Lewis, & J. M. Haviland-Jones (Eds.), *Handbook of emotions* (pp. 504-520). New York: Guilford Press.

Salovey, P., Stroud, L. R., Woolery, A., & Epel, E. S. (2002). Perceived emotional intelligence, stress reactivity, and symptom reports: Further explorations using the trait meta-mood scale. *Psychology and Health*, *17,* 611-627.

Shewchuk, R. M., Johnson, M. O., & Elliott, T. R. (2000). Self-appraised social problem solving abilities, emotional reactions and actual problem solving performance. *Behaviour Research & Therapy, 38,* 727-740.

Taylor, G. J., Parker, J. D. A., & Bagby, R. M. (1999). Emotional intelligence and the emotional brain: Points of convergence and implications for psychoanalysis. *Journal of the American Academy of Psychoanalysis, 27,* 339-354.

Thorndike, E. (1921). Intelligence and its uses. *Harper's Magazine, 140,* 227-235.

Wechsler, D. (1940). Non intellectual factors in general intelligence. *Psychological Bulletin, 37,* 444-445.