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Emotional intelligence, cognitive flexibility and psychological symptoms in pre-service teachers

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The purpose of this study is to examine the relationship between emotional intelligence, cognitive flexibility and psychological symptoms in pre-service teachers. The study included 414 pre-service teachers at the Faculty of Education, Mersin University, Turkey. Pearson product-moment correlation and multiple regression analyses were used to analyze the data. The results indicated that emotional intelligence and cognitive flexibility showed significant negative correlation with anxiety and depression. In addition, evaluation of emotions, which is one of the dimensions of emotional intelligence, was the strongest predictor of psychological symptoms.

Key words: Emotional intelligence, cognitive flexibility, psychological symptoms.

INTRODUCTION

The discussion of the relationship between the mind and emotions, which are the two important human-specific structures, goes back a long way and the answer to this relationship is complex (Elster, 1999). Along with the behaviorist movement, the scientific value of the behaviors that can be objectively observed has been elaborated for a long time. Since the 1960s, psychology has focused on the way information is recorded and stored, cognitive processes and the nature of intelligence. In this process, cognitive psychologists overlooked the role of emotions in leading the mind (Goleman, 2005).

Cognitive psychologists, particularly, Beck (2005) and Ellis (1962) state that thoughts are the main determiners in behavior and cause emotional dysregulation. In addition, the psychology literature has also stated that emotions that are repressed for long periods systematically guides cognition and enable individuals to give reaction to the environment (Oatley et al., 2006). Even according to the traditional view, emotions are involved in rationalist choices, while—according to a recently revised view—emotions play a regulatory role (Elster, 1999). According to Goleman (2005), "As long as emotions get a grasp on us, intelligence—good or bad—can fetch up nowhere."

Emotional Intelligence

Emotions play a crucial role in understanding humans and making sense of thoughts and behaviors (Tuğrul, 1999). Emotions that are strong organizers of thought and action seem conflicting; however, emotions are required to reason and to be reasonable (Cooper and Sawaf, 2000). In this framework, the concept of emotional intelligence has been examined since the 1990s, and is briefly explained as the awareness of one's emotions, to control and to use them in relationships. Salovey and Mayer (1990) first used the term "emotional intelligence", and postulated that emotional intelligence consists of the following three categories of adaptive abilities: appraisal and expression of emotion, regulation of emotion and utilization of emotions in solving problems. The first

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category consists of the components of appraisal and expression of emotion in the self and appraisal of emotion in others.

Mayer and Salovey (1997) revised the model and described four main components of the cognitive and emotional system the base of emotional intelligence: a) perception of emotion, b) emotional facilitation, c) understanding emotions, and d) management of emotions. In other words, emotional information is mentally processed. In this revised model, emotional intelligence is described as a kind of social intelligence that includes recognizing the emotions of oneself and of others, distinguishing these emotions and using this information to lead thoughts and actions. Based on the Salovey–Mayer's first model of emotional intelligence (Salovey and Mayer 1990), Schutte and et al. (1998) developed Emotional Intelligence Scale-EIS. The EIS was used by many researches to measure emotional intelligence (Chan, 2004; Charbonneau and Nicol, 2002; Grisham et al., 2008). In the present research, this instrument was used.

Bar-On explains the emotional intelligence as personal skills, adaptability, stress management and general mood and the underlying abilities and skills (Acar, 2001). Adaptability involves the ability to respond to the environment, new situations and to deal with problems, and has three sub-dimensions (Bar-On et al., 2003; Bar-On, 2005, cited by Karakuş, 2008): Reality testing; One's objectively comparing his/her own emotions and thoughts with external realities and adapting his/her own emotions and thoughts to the external realities; Flexibility; One arranging his/her own emotions and thoughts to conform the needs of new situations; Problem-solving; one's ability to effectively solve personal and interpersonal problems.

Goleman (2005) describes emotional intelligence as the capacity to motivate oneself; proceeding on one's way despite deficiencies; delaying satisfaction by controlling one's incentives; developing empathy to others' emotions and thoughts; and regulating one's own emotions in a way to enrich one's life. According to Goleman, intelligence is composed of two capacities — rational and emotional—and these structures are in continuous interaction. These capacities are effective in the processing of stimulus and behavior. Intelligence balance of rational–emotional is counterbalanced as the emotions intensify and the emotional mind takes the control and the rational mind loses its effect. Generally, the emotional and rational mind is in a balance. Emotion contributes to the processing of the rational mind, while the rational mind gives shape to emotional data. Both reflect the processing of differently, but have interrelated cycles. Frequently, they work in an extraordinary collaboration; emotion is indispensable for thoughts and vice versa.

Emotional intelligence has been discussed in the domains of psychology and education. It has been observed that emotional intelligence is related to many social and psychological problems. It has been stated that people with high level of emotional intelligence manage their emotions better, establish better communications psychologically and socially and behave functionally (Mayer et al., 2008; Gawali, 2012; Sü Eröz, 2011; Keskin, 2010). People with high level of emotional intelligence competence have high levels of life satisfaction (Koçak and İçmenoğlu, 2012) and job satisfaction (Karakuş, 2008) and experience less stress and exhaustion (Wu, 2011).

Cognitive constructs and flexibility

All Salovey-Mayer, BarOn and Goleman's models seem not to contradict each other. On the contrary, it is assumed that cognitive and emotional constructs are connected. It is particularly striking that cognitive flexibility, which is defined by cognitive psychologists and evaluated as the ability to adapt to certain situations and passing from one thought to another; or the capacity of looking at different problems with multilateral strategies (Stevens, 2009) shows conceptual similarity with emotional intelligence. It is quite difficult to perceive what percentages of an exhibited behavior are affected by cognitive or emotional intelligence. However, the present study examines to what extent the relationships between emotional intelligence and cognitive processes and their contributions are effective in the development of psychological symptoms.

Recently, emotional intelligence has been intensively discussed via the simile of "mellow wine in an old bottle." However, according to Davison and Neale (2004), the cognitive paradigm maintains its effectiveness in today's psychology world. According to cognitive psychologists, (irrational) cognitions and schemes that lie behind our emotions and behaviors are rooted in anxiety and depression and many other dysfunctional problems (Beck et al., 2001; Fulton et al., 2011; Odin et al., 2013). Cognitive psychologists therefore propose that thoughts which cause psychological stress in intervention can be changed and new and satisfying emotion-behavior can be gained (Szentagotai and Freeman, 2007; Corey, 2001; Sharf, 1999; Capuzzi and Gross, 2003).

In addition to irrational thoughts, the concept of self-efficacy belief proposed by Bandura made particularly important contributions to the transformation of behaviors from a cognitive–behaviorist perspective (Capuzzi and Gross, 2003). Bandura (1977) at first described the concept of self-efficacy expectation as the belief in one's ability to successfully exhibit certain behaviors; then stated this concept as the belief in the ability to organize one's own abilities and make them a behavior (Bandura, 1986). Therefore, beginning a behavior and successfully exhibiting this behavior is determined by making the required effort, one's insisting on dealing with the encountered problems while exhibiting the behavior and

the perception of one's own competence in the subjects.

Similarly to emotional intelligence, the concept of cognitive flexibility has also been examined since the 1990s, and is described by Martin and Rubin (1995) as one's awareness of the choices that are appropriate for new situations, adapting to new situations and being willing to be flexible and feeling oneself self-efficient when one is flexible. In this framework, it can be stated that cognitive flexibility is based on the belief in self-efficacy.

Individuals with high level of cognitive flexibility easily adapt to new situations (Anderson, 2002), can deal with stress (Altunkol, 2011) and their worries decrease while their adaptation increases (Öz, 2012). According to Diril (2011), there is a significant positive relationship between anger management and cognitive flexibility, while Bilgin (2009b) reported that problem-solving skills significantly predicted cognitive flexibility.

Emotional intelligence, cognitive flexibility and psychological symptoms

The structures of emotional intelligence and cognitive flexibility begin to develop in childhood, and are regarded as important in terms of human development and psychological health. Some studies reported a negative relationship between high level of emotional intelligence and anxiety (Jacobs et al., 2008; Salovey et al., 2002; Lizeretti and Extremera, 2011; Bhullar et al., 2012) and depression (Rude and McCarthy, 2003; Williams et al., 2004; Batool and Khalid, 2009; Lloyd et al., 2012). Common emphasis in these studies may be summarized as emotional intelligence affects well-being. Similarly, some researches in the related literature emphasized the relationship of cognitive constructs and psychological symptoms. For example, a positive relationship between depression and anxiety, and irrational beliefs (Bridges and Harnish, 2010; Taghavi et al., 2006), automatic thoughts (Hjemdal et al., 2013) and a negative relationship between depression-anxiety and self-efficacy (Muris, 2002; Mystakidou et al., 2010) were reported. In a similar vein, depression and anxiety were more common on cognitively non-flexible individuals (DeBerry, 2012), and depressive persons display less cognitive skills to evaluate the environmental alternatives (Gan et. al., 2006). According to Airaksinen et al. (2004), depressive individuals show inadequate capability in episodic memory and cognitive flexibility.

Emotional intelligence and cognitive capacity separately affect psychological symptoms. The relationship of emotional intelligence and several variables was examined. However, there are limited study to examine the relationship of emotional intelligence with cognitive constructs and psychological symptoms.

There are studies to criticize the effect of emotional intelligence to predict adaptive processes such as personality and cognitive abilities (Brody, 2004). But there also studies to emphasize the positive effect of emotional intelligence on these constructs. In a study examined general cognitive ability, emotional intelligence, personality and mental health, Davis and Humprey (2012) pointed out that emotional intelligence, instead of general cognitive ability was the most powerful variable to predict behavior problems and had a significant relationship with mental health. Şahin et al. (2009) examined cognitive and emotional intelligence in relation to dealing with stress and stress signs in the A type personality pattern. They reported a significant negative relationship between the experienced stress signs and overcoming stress effectively and emotional intelligence and a significant positive relationship between ineffectively dealing with stress and type-A personality. Moreover, the variables that predicted stress signs of among A–types were determined to cause less usage of the methods for overcoming stress effectively and to have inefficiency of emotional intelligence in the dimension of general mood. According to Gannon and Ranzijn (2005) the effect of emotional intelligence on life satisfaction was more than IQ.

There are a limited number of studies combining emotional intelligence, psychological symptoms and cognitive structures, and emotional intelligence has been discussed in terms of different variables. Because of the limited number of study on the topic, the relationship between psychological symptoms, and emotional intelligence and cognitive constructs are not clearly defined.

This study discusses the effects of emotional intelligence and cognitive processes on psychological symptoms, and aims to address the current gap in knowledge within this domain. The present study includes pre-service teachers who will in future educate children. Childhood includes critical and dynamic developmental processes, and is a period in which educational, personal and social skills are also developed. Therefore, it is thought that examining the emotional intelligence, cognitive flexibility and psychological symptoms of pre-service teachers is crucial in terms of educational surveys and programs.

The purpose of the study

The purpose of this study is to determine the relationships between emotional intelligence, cognitive flexibility and psychological symptoms; and to examine the contributions of emotional intelligence and cognitive flexibility in predicting psychological symptoms.

METHOD

Study group

The study group comprised 414 pre-service teachers at the Faculty

Table 1. Descriptive statistics for emotional intelligence, cognitive flexibility and psychological symptoms.

	N	Min.	Max.	Range	Mean	Std. Dev.
Optimism/ mood management	414	37.00	104.00	67.00	80.30	9.40
Evaluation of the emotions	414	13.00	64.00	51.00	47.23	7.86
Use of the emotions	414	11.00	35.00	24.00	24.11	4.24
Cognitive Flexibility	414	20.00	72.00	52.00	54.56	8.15
Anxiety	414	.00	44.29	44.29	11.93	9.00
Depression	414	.00	45.00	45.00	14.69	10.04
Valid N (listwise)	414					

of Education, Mersin University, Turkey. Participants ranged in age from 18 to 32; 58.2% (n= 241) were females and 41.8% were males (n=173).

Measurement tools

Emotional Intelligence Scale (EIS): This scale was developed by Austin et al., (2004) and is composed of 41 items. This scale is a revision of the scale developed by Schutte et al. (1998) that was composed of 33 items. The theoretical basis of EIS is the three-dimensional emotional intelligence model of Salovey and Mayer (1990), which uses a 5-point Likert-type scale (1-completely, agree; 5-completely disagree). The scale was adapted to Turkish by Tatar et al. (2011). This adaptation of the scale is composed of 41 items and three sub-factors, as in the original. In the adaptation study, Tatar et al. applied exploratory factor analysis and found the variance explained for three factors was 32.14%. Further, the confirmatory factor analysis confirmed the three-dimensional structure as Goodness of Fit Index-GFI: .88; Adjusted Goodness of Fit Index-AGFI: .86; The Parsimony Ratio: .92; RMSEA: .06; RMR: .09;(X^2(347)= 2647,35; p<0,00). In the reliability study, Cronbach-Alpha internal consistency was calculated as .82 for the whole scale. The internal consistency coefficients of the three factors were: .75 for optimism/ mood management; .39 for use of the emotions; and .75 for evaluation of the emotions (Cited by Tatar et al.). In the reliability analysis conducted within the scope of the study, Cronbach-Alpha coefficient was calculated as .88 for the whole scale and was .85, .63 and .82 for the sub-factors, respectively.

Cognitive flexibility scale (CFS): The Cognitive Flexibility Scale (CFS) was developed by Martin and Rubin (1995), and is composed of 12 items that are scored via a 6-point Likert-type rating (1-completely agree; 6-completely disagree). The lowest score of the scale is 12 and the highest is 72. High scores indicate high level of cognitive flexibility while low scores indicate low cognitive flexibility. Martin and Rubin (1995) stated that the items were related with the three components of cognitive flexibility. However, they calculate a total score than a three dimensional structure. Altunkol (2011) also proposed a one-dimensional structure in the adaptation study. In the criterion-related validity analysis, significant correlations were observed between Cognitive Flexibility Scale and Dysfunctional Attitude Scale (r=-.23), Irrational Beliefs Test (r=-.14) and Cognitive Flexibility Scale (r=.54) (Bilgin, 2009a). Cronbach-Alpha coefficients reported in different studies using this scale range between .72 and .87. Turkish adaptation of CFS and validity and reliability analyses were conducted by Altunkol. The Cronbach-Alpha coefficient of internal consistency was .81. This scale was used to calculate the total score rather than as a sub-scale in the original and in other studies. In the present study, Cronbach-Alpha internal consistency for the whole scale was calculated as .82.

Brief symptom inventory (BSI): This scale is a self-assessment scale consisting of 53 items using a Likert-type scale developed by Derogatis (1992; cited from Savaşır and Şahin, 1997). The scale is used to scan various psychological symptoms. BSI is the short form of SCL-90-R (Symptom Check List). The instrument was adapted to Turkish by Şahin and Durak (1994). In the factor analysis, a five dimensional structure; anxiety, depression, negative self concept, somatization and hostility, was observed. In the criterion-related validity analysis, significant correlations were observed between sub-dimensions of BSI and Social Comparison Scale (r=-.14 and -.34), Obedience Scale (r=.16 and .42), Stress Tendency Scale (r=.24 and .36), UCLA Loneliness Scale (r=.13 and .36), Offer Loneliness Scale (r=.34 and .57), Beck Depression Inventory (r=.34 and .70). The BSI can be used for normal and Psychiatric populations and a score can be calculated for each sub-scale. In the present study, anxiety and depression subscales commonly used in the cognitive psychology researches were used. Cronbach-Alpha internal consistency coefficients for the whole scale were calculated as .96 and .95, while coefficients for the sub-scales varied between .55 and .86. Within the present study, the internal consistency coefficients for the sub-scales were .88 for anxiety and .90 for depression.

RESULTS

Pearson product moment correlation and multiple regression analyses were applied to the obtained data in order to examine the relationship between emotional intelligence, cognitive flexibility and psychological symptoms of pre-service teachers.

Descriptive statistics

Descriptive statistics related with emotional intelligence, cognitive flexibility and psychological symptoms is given in Table 1.

Bivariate correlations

Correlation coefficients related with emotional intelligence, cognitive flexibility and psychological symptoms are shown in Table 2.

As seen in Table 2, there are significant positive

Table 2. The relationship between emotional intelligence cognitive flexibility and psychological symptoms.

Variable	1	2	3	4	5	6
Optimism/ mood management	1					
Evaluation of the emotions	.552**	1				
Use of the emotions	.294**	.319**	1			
Cognitive Flexibility	.457**	.511**	.137**	1		
Anxiety	-.301**	-.531**	-.084	-.348**	1	
Depression	-.277**	-.470**	-.087	-.327**	.775**	1

n=414, *p<.05, **p<.01.

Table 3. Results of multiple regression analysis related to prediction of psychological symptoms.

	Anxiety					Depression				
Independent variable	**B**	**Std. H.**	**Beta**	**t**	**p**	**B**	**Std. H.**	**Beta**	**t**	**p**
Constant	40.85	3.631		11.251	.000	45.020	4.227		10.650	.000
Optimism/mood manag.	-.002	.050	-.002	-.031	.975	-.009	.058	-.008	-.149	.882
Evaluation of the emotions	-.582	.062	-.509	-9.39	000	-.549	.072	-.430	-7.595	.000
Use of the emotions	.196	.094	.092	2.08	.038	.161	.110	.068	1.474	.141
Cognitive flexibility	-.110	.055	-.100	-2.00	0.46	-.140	.064	-.113	-2.178	.030

Multiple R=.55; R^2=.30; $F_{(4\text{-}409)}$=43.33; p=.000; multiple R=.49; R^2=.23; $F_{(4\text{-}409)}$=31.47; p=.000.

relationships between emotional intelligence and cognitive flexibility. It can be concluded that the sub-scales of optimism/mood management and evaluation of the emotions have significant negative relationships with anxiety and depression. Similarly, cognitive flexibility score shows significant inverse relationships with anxiety and depression. The correlation analyses show that as the scores for emotional intelligence and cognitive flexibility increase, psychological symptoms reduce.

Multiple regression analyses were used to examine the power of emotional intelligence and cognitive flexibility in predicting psychological (Table 3).

Table 3 shows significant relationships between emotional intelligence and flexibility scores and anxiety (R=0.55, R^2=0.30, p<0.000) can be observed. Those variables explain 30% of the variance related to anxiety. Based on standardized regression coefficient (β), the predictive importance of the variables follows the sequence: evaluation of the emotions > use of the emotions > cognitive flexibility > optimism. The t-test relating to the significance of regression coefficients shows that evaluation of emotions is the strongest predictor of anxiety, followed by the use of emotions and cognitive flexibility. On the other hand, the sub-scale of optimism has no predictive effect on anxiety.

Table 3 shows that depression has significant relationships with independent variables (R=0.49, R^2=0.23, p<0.000) and these variables explain 23% of the variance in depression. Based on standardized regression coefficient (β), the predictive importance of the variables follows the sequence: evaluation of the emotions > use of the emotions > cognitive flexibility > optimism. The t-test for the significance of regression coefficients shows that evaluation of emotions and cognitive flexibility contribute significantly to the prediction, whereas use of emotions and optimism has no effect on prediction. As with anxiety, the strongest predictor of depression is the evaluation of emotions, which is the sub-scale of emotional intelligence.

DISCUSSION

This study examined the relationships between emotional intelligence, cognitive flexibility and psychological symptoms. A significant positive relationship was found between emotional intelligence and cognitive flexibility. In addition, it was also concluded that emotional intelligence and cognitive flexibility have significant negative relationships with anxiety and depression. It is concluded that high levels of emotional intelligence and cognitive flexibility are associated with psychological symptoms. On the other hand, the regression analysis shows that evaluating emotion, which is one of the sub-scales of emotional intelligence, is the strongest predictor of anxiety and depression. Cognitive flexibility is significantly related to psychological symptoms but makes little contribution to prediction.

When the relationships between the variables are examined, the findings are in agreement with previous studies in literature. The significantly positive relationship between emotional intelligence and cognitive flexibility would be expected, and supports the finding of Davis and

Humprey (2012), Şahin et al. (2009) and Gannon and Ranzijn (2005). As Goleman (2005) states, rational and emotional minds are not alternatives for each other—rather, they interact to contribute to the exhibition of behaviors.

The finding of negative relationship between cognitive flexibility, emotional intelligence scores and psychological symptoms coincides with studies in the literature. People with high levels of cognitive flexibility and cognitive intelligence more easily adapt (Anderson, 2002) and can better deal with stress (Altunkol, 2011; Şahin et al., 2009). Öz (2012) reported a negative relationship between cognitive flexibility and worry, while Diril (2011) found a positive relationship with anger control. Individuals who are not sufficiently flexible behave rigidly, make the same mistakes and have difficulty in adapting to new situations (Anderson, 2002). People who have irrational belief have also high levels of worry and depression (Bridges and Harnish, 2010). People with sufficient cognitive flexibility can effectively deal with new and difficult situations; and can produce alternative ideas and thoughts (Stahl and Pry, 2005). Moreover, cognitive flexibility plays a key role in individuals developing a belief in self-efficacy as part of developing a healthy lifestyle (Martin et al., 1998).

Other studies in the literature have also reported that emotional intelligence and psychological structures are related. Some studies also reported that high level of emotional intelligence was negatively related to anxiety (Yip and Côté, 2013; Lizeretti and Extremera, 2011; Bhullar et al., 2012) and depression (Karakuş, 2008; Rude and McCarthy, 2003; Williams et al., 2004; Batool and Khalid, 2009; Lloyd et al., 2012). Deniz and Yılmaz (2006) found that university students with high level of emotional intelligence more frequently use problem-focused coping strategies. Similarly, Şahin et al. (2009) found a positive relationship between emotional intelligence and effective dealing at a high level. On the other hand, it has been observed that people with high level of emotional intelligence have higher functions in intra-personal and interpersonal relationships (Salovey et al., 2002; Sü Eröz, 2011). Ümit (2010) found significant negative relationships between emotional intelligence scores and aggressiveness in a study of adolescents.

Both cognitive flexibility and emotional intelligence are related to psychological symptoms; however, according to the results of this study, emotional intelligence was a stronger predictor than cognitive flexibility for anxiety and depression. Although the cognitive paradigm maintains its currency, the study results mostly support studies that focused on emotional intelligence. The limited researches examining emotional intelligence and cognitive abilities together exert the findings consistent with this result. According to Davis and Humprey (2012) emotional intelligence is the most powerful variable than general cognitive ability to predict behavioral problems and there is a significant relationship between mental health and emotional intelligence. Similarly, Gannon and Ranzijn (2005) also observed that emotional intelligence rather than IQ had an important effect on life satisfaction. Şahin et al. (2009), who reported a significant relationship between cognitive intelligence and dealing with stress at a low level; and that cognitive intelligence, had no predictive effect. The same study concluded that sub-scales of intelligence significantly predicted abilities to deal with stress in a general sample, and in groups exhibiting types A and B behavioral patterns.

According to Gawali (2012), emotional intelligence plays a crucial role in individual's mental health. Individuals with high level of emotional intelligence can deal with the changes in life and can control their emotions effectively, and are thereby able to strengthen their mental health. Psychological and sociological factors have been used to attempt to explain why people with the same IQs do not show the same success in their professional lives. It was soon understood that cognitive intelligence is not always the key to success (Acar, 2001). Therefore, depending on the study results, it is thought that poor understanding and control of emotions can result in emotional disorders.

The greater power of emotional intelligence scores in predicting anxiety and especially depression might be because these psychological symptoms are more strongly related to emotional situations than to cognitive processes. In another words, problems in controlling and guiding emotions result in some troubles and affect mental health. For instance, Carl et al. (2013) stated that disorders in regulating emotions are associated with increased emotional problems. Similarly Rydell et al. (2007) stated that children with low level of emotional regulation display poor social functions. According to Goleman (2005), emotional intelligence indicates an individual's recognition of their own emotions and those of others, motivating himself/herself and good ability to manage emotions in both the individual and his/her relationships. Similarly, Salovey and Mayer (1990) described emotional intelligence as one's recognizing his/her own emotions and those of others, differentiating these emotions and using this information in guiding thoughts and actions. The effect of emotional intelligence on the situation of emotion is inevitable.

As stated at the beginning of this study, it is difficult to estimate the extent to which a behavior is cognitive or emotional oriented; however, in this study, emotional intelligence scores were more effective on anxiety and depression. Certainly, rational and emotional factors interact to influence behaviors along a continuous spectrum (Goleman, 2005). According to Öztürk (2004), cognitive and emotional processes cannot diverge from each other in people's emotional lives. Within this frame, emotional mind can be thought to be more dominant in psychological symptoms as anxiety and depression. In this framework, future studies may examine the mediator variables between emotional and cognitive structures.

For example, emotional intelligence and psychological symptoms by means of structures like cognitive flexibility can be examined. The results of the present study revealed that optimism/mood management subtests of EIS significantly correlated with anxiety and depression but in the subsequent regression analysis did not predict these variables. This may be a result of the psychometric characteristics of EIS. Schutte Emotional Intelligence Scale (Schutte et al., 1998) originally had one dimension. However, afterward Austin et al., (2004) examine the scale and proposed three dimensions. Then, the other researchers (Gignac et al., 2005) proposed a four dimensional structure for the same scale. In this context, it may be important to examine the factor structure of the scale in the further studies for more valid results on emotional intelligence. Besides that, significant co-efficients between these variables in the correlation analysis but non significant prediction in the regression may be result of the reciprocal effect of the variables.

The findings indicate the problem domains in which emotional intelligence is effective and precautions that can be taken to develop this intelligence. Neurological studies on the development of emotional feelings indicate that the unit that creates emotion in the brain is sufficiently flexibility that it has the potential to develop even in adulthood. However, individuals need a systematic program and strong internal commitment combined with external support in order to develop these emotional skills (Emmerling and Goleman, 2003; Bryan, 2006, cited by Karakuş, 2008). The studies on this subject are promising. Karahan and Özçelik (2006) reported that training in developing emotional intelligence skills affected the levels of emotional intelligence of people with diabetes. Yaşarsoy (2006) stated that an emotional intelligence development program for students of special training classrooms reduced behavioral problems among students. Empathy is a crucial part of emotional intelligence, and includes understanding emotions. The findings of studies on empathy are in agreement with this result. Kahraman and Akgün (2008) stated that training in empathy skills reduced problematic behavior among children. Doğan et al. (2010) reported a positive relationship between emphatic tendencies and anger control, while Hasta and Güler (2013) reported a negative relationship emphatic tendency and aggressiveness.

Emotional intelligence is a capacity that can be developed. Therefore, experimental studies can be conducted on this subject. In addition, studies can also be conducted on developing emotional intelligence among pre-service teachers. The findings of the present study are limited by the measurement tools used. Cognitive flexibility structure was examined in this study and, based on this, emotional intelligence and cognitive structures were examined. In future studies, the use of different measurement tools that can assess cognitive structures will provide more generalizable results. Another limitation of the study is discussion of anxiety and depression, which are types of psychological symptoms. Future studies might use the different dimensions of SCL-90-R, which measure different psychological symptoms such as hostility, somatization, negative ego, etc. Moreover, the emotional intelligence levels of teachers and students can be evaluated together, and the contributions of the relationships within the educational environment on emotional intelligence can also be studied.

In conclusion, the findings indicate that the capacity for emotional intelligence rather than cognitive flexibility is a much stronger predictor of anxiety and depression. Within this context, measures adopted by educators to increase their capacity for emotional intelligence will contribute to training students with greater psychological and social capabilities.

REFERENCES

Acar FT (2001). The relationship of emotional intelligence with leadership behaviors towards human and task. Unpublished PhD thesis. Social Sciences Institute of Istanbul University, İstanbul.

Airaksinen E, Larsson M, Lundberg I, Forsell Y (2004). Cognitive functions in depressive disorders: evidence from a population-based study. Psychol Med. 34(1):83-91.

Altunkol F (2011). Üniversite öğrencilerinin bilişsel esneklikleri ile algılanan stress düzeyleri arasındaki ilişkinin incelenmesi. Yayımlanmamış Yüksek Lisans Tezi, Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, Adana.

Anderson P (2002). Assessment and development of executive function (ef) during childhood. Child Neuropsychol. 8(2):71-82

Austin EJ, Saklofske DH, Huang SHS, McKenney D (2004). Measurement of trait emotional intelligence: testing and cross-validating a modified version of Schutte et al.'s (1998) measure. Pers. Individ. Differ. 36(3):555-562.

Bandura A (1986). Social foundation of thought and action: a social theory. Englewood Cliffs, Nj: Prentice Hall.

Bandura A (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, 84:191-215.

Batool SS, Khalid R (2009). Low emotional intelligence: a risk factor for depression, Journal of Pakistan Psychiatric Society, 6(2): 65-72.

Beck AT (2005). Bilişsel terapi ve duygusal bozukluklar. (Edit: Tahir Özakaş, çev. Aysun Türkcan), İstanbul:Litara Yayıncılık

Beck AT, Butler AC, Brown GK, Dahlsgaard KK, Newman CF, Beck JS (2001) Dysfunctional beliefs discriminate personality disorders. Behaviour Research and Therapy, 39(10): 1213-1225.

Bilgin M (2009a). Developing a cognitive flexibility scale: validity and reliability studies. Soc. Behav. Pers. 37(3):343-354.

Bilgin M (2009b). Bilişsel esnekliği yordayan bazı değişkenler. Çukurova Üniversitesi Eğitim Fakültesi Dergisi, 36 (3):142-157.

Bhullar N, Schutte NS, Malouff JM (2012). Trait emotional intelligence as a moderator of the relationship between psychological distress and satisfaction with life. Individ. Differ. Res. 10(1):19-26.

Bridges KR, Harnish RJ (2010). Role of irrational beliefs in depression and anxiety: a review. Health 2(8):862-877.

Brody N (2004). What cognitive intelligence is and what emotional intelligence is not? Psychol. Inquiry 15(3):234-238.

Capuzzi D, Gross DR (2003). Counseling and psychotherapy: theories and interventions. New Jersey: Pearson Education.

Carl JR, Soskin DP, Kerns C, Barlow DH (2013). Positive emotion regulation in emotional disorders: A theoretical review. Clin. Psychol. Rev. 33:343-360.

Chan DW (2004). Perceived emotional intelligence and self-efficacy among Chinese secondary school teachers in Hong Kong. Pers. Individ. Dif. 36(8): 1781-95.

Charbonneau D, Nicol AMA.(2002) Emotional Intelligence and Leadership in adolescents. Pers. Individ. Dif. 33(7):1101-1113.

Cooper RK, Sawaf A (2000). Liderlikte duygusal zeka. İstanbul: Sistem Yayıncılık.
Corey G (2001). Theory and practice of counseling and psychotherapy. Pacific Grove, CA: Brooks/Cole.
Davis SK, Humphrey N (2012). Emotional intelligence predicts adolescent mental health beyond personality and cognitive ability. Pers. Individ. Dif. 52(2):144-149.
Davison GC, Neale JM (2004). Anormal Psikolojisi. (Çev. Edt. İhsan Dağ). Ankara:Türk Psikologlar Derneği Yayınları.
DeBerry LK (2012). The Relation Between Cognitive Inflexibility and Obsessive-Compulsive Personality Traits In Adults: Depression and Anxıety As Potential Mediators, Master Thesis, Bachelor of Science in the Department of Psychology, The University of Southern Mississippi.
Deniz ME, Yılmaz E (2006). Üniversite öğrencilerinde duygusal zeka ve stresle başa çıkma stilleri arasındaki ilişkinin incelenmesi. Türk Psikolojik Danışma ve Rehberlik Dergisi 3(25):17-26.
Diril A (2011). Lise öğrencilerinin bilişsel esneklik düzeylerinin sosyodemografik değişkenler ve öfke düzeyi ile öfke ifade tarzları arasındaki ilişki açısından incelenmesi. Yayımlanmamış Yüksek Lisans Tezi, Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, Adana.
Doğan H, Üngüren E, Algür S (2010). Öfke ve empati ilişkisine yönelik otel zincirinde bir araştırma. Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi 19(3):277-297.
Ellis A (1962). Reason and emotion in psychotherapy. New York: Springer.
Elster J (1999). Alchemies of the mind: Rationality and the emotions. Cambridge University Press.
Fulto JJ, Marcus DK, Merkey T (2011). Irrational health beliefs and health anxiety. J. Clin. Psychol. 67(6):527-538.
Gan Y, Zhang Y, Wang X, Wang S, Shen X (2006). The coping flexibility of neurasthenia and depressive patients. Pers. Individ. Dif. 40(5):859-871.
Gannon N, Ranzijn R (2005). Does emotional intelligence predict unique variance in life satisfaction beyond IQ and personality? Pers. Individ. Dif. 38 (6):1353-1364.
Gawali KC (2012). Relationship between emotional intelligence and positive affectivity among college teachers. Golden Research Thoughts 1(7):1-4.
Gignac GE, Palmer BR, Manocha R, Stough C (2005). An examination of the factor structure of the Schutte Self-Report Emotional Intelligence (SSREI) scale via confirmatory factor analysis. ? Pers. Individ. Dif. 39(6):1029-1042.
Goleman D (2005). Duygusal zeka neden IQ'dan daha önemlidir? (çev. Banu Seçkin Yüksel), İstanbul :Varlık Yayınları.
Grisham J, Steketee G, Frost R (2008). Interpersonal problems and emotional intelligence in compulsive hoarding. Depress Anxiety 25(9):63-71.
Hasta D, Güler E (2013). Saldırganlık: kişilerarası ilişki tarzları ve empati açısından bir inceleme. Ankara Üniversitesi Sosyal Bilimler Enstitüsü Dergisi 1(1):1-41.
Hjemdal O, Stiles T, Wells A. (2013). Automatic thoughts and meta-cognition as predictors of depressive or anxious symptoms: a prospective study of two trajectories. Scand. J. Psychol. 54(2):59-65.
Jacobs M, Snow J, Geraci M, Vythilingam M, Blair RJ, Charney DS, Pine DS, Blair KS (2008). Association between level of emotional intelligence and severity of anxiety in generalized social phobia. J. Anxiety Disorders 22:1487-1495.
Kahraman H, Akgün S (2008). Empati beceri eğitiminin okul öncesi dönemdeki çocukların empati becerilerine ve sorun davranışlarına etkisi. Çocuk ve Gençlik Ruh Sağlığı Dergisi 5(1):15-23.
Karahan TF, Özçelik M (2006). Bir duygusal zeka beceri eğitimi programı'nın diabet hastalarının duygusal zeka düzeylerine etkisi. Uludağ Üniversitesi Eğitim Fakültesi Dergisi 19 (2):301-320.
Karakuş M (2008). İlköğretim okul yöneticilerinin ve öğretmenlerin duygusal zekâ yeterliklerinin, öğretmenlerin duygusal adanmışlık, örgütsel vatandaşlık ve iş doyumu düzeylerine etkisi. Yayımlanmamış Doktora Tezi, Fırat Üniversitesi Sosyal Bilimler Enstitüsü, Elazığ.
Keskin D (2010). Hemşirelik yüksekokulu birinci sınıf öğrencilerinin duygusal zeka düzeyleri ile empati becerileri arasındaki ilişki. Yayımlanmamış Yüksek Lisans Tezi, İstanbul Üniversitesi Sağlık Bilimleri Enstitüsü, İstanbul.
Koçak R, İçmenoğlu E (2012). Üstün yetenekli öğrencilerin duygusal zekâ ve yaratıcılık düzeylerinin yaşam doyumlarını yordayıcı rolü. Türk Psikolojik Danışma ve Rehberlik Dergisi 4(37):73-85.
Lizeretti NP, Extremera N (2011) Emotional intelligence and clinical symptoms in outpatients with generalized anxiety disorder (GAD), Psychiatry Q, 82:253-260
Lloyd SJ, Malek-Ahmadi M, Barclay K, Fernandez MR, Chartrand MS (2012). Emotional intelligence (EI) as a predictor of depression status in older adults. Arch. Gerontol. Geriatr. 55(3):570-573.
Martin MM, Anderson CM, Thweatt KS (1998). Individuals' perceptions of their communication behaviors: a validity study of the relationship between the cognitive flexibility scale and the communication flexibility scale with aggressive communication traits. J. Soc. Behav. Pers. 13:531-540.
Martin MM, Rubin RB (1995). A new measure of cognitive flexibility. Psychol. Rep. 76(2):623-626.
Mayer JD, Salovey P (1997). What is emotional intelligence? In: Salovey P & Sluyter D (Eds.): Emotional development and emotional intelligence: implications for educators. New York: Basic Books pp.3-31.
Mayer JD, Salovey P, Caruso DR (2008). Emotional Intelligence: New ability or eclectic traits? Am. Psychol. 63:503-517.
Mystakidou K, Parpa E, Tsilika E, Gogou P, Panagiotou I, Galanos A, Kouvaris I, Gouliamos A (2010). Self-Efficacy, Depression, and Physical Distress in Males and Females With Cancer. Am. J. Hospice Palliative Med. 27(8):518-525.
Muris P (2002). Relationships between self-efficacy and symptoms of anxiety disorders and depression in a normal adolescent sample. 32(2):337-348.
Oatley K, Keltner D, Jenkins JM (2006). Understanding emotions, Blackwell Publishing.
Odin H, Tore S, Adrian W (2013). Automatic thoughts and meta-cognition as predictors of depressive or anxious symptoms: A prospective study of two trajectories. J. Psychol. 54(2):59-65.
Öz S (2012). Ergenlerin cinsiyet, sosyo-ekonomik ve öğrenim kademesi düzeylerine göre bilişsel esneklik, uyum ve kaygı puanları arasındaki ilişkinin incelenmesi. Yayımlanmamış Yüksek Lisans Tezi, Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, Adana.
Öztürk MO (2004). Ruh sağlığı ve hastalıkları, Ankara:Nobel Kitapevi.
Rude SS, McCarthy CT (2003). Emotional functioning in depressed and depression-vulnerable college students. Cogn. Emotion 17 (5):799-806.
Rydell A-M, Thorell LB, Bohlin G (2007). Emotion regulation in relation to social functioning: An investigation of child self-reports. Eur. J. Dev. Psychol. 4(3):293-313.
Salovey P, Mayer JD (1990). Emotional Intelligence. Imagin. Cogn. Pers. 9:185-211.
Salovey P, Stroud LR, Woolery A, Epel ES (2002). Perceived emotional intelligence, stress reactivity, and symptom reports: Further explorations using the trait meta-mood scale. Psychol. Health 17:611-627.
Savaşır I, Şahin NH (1997). Bilişsel-davranışçı terapilerde değerlendirme: sık kullanılan ölçekler. Ankara.Türk Psikologlar Derneği Yayınları.
Sharf RS (1999). Theories of psychotherapy and counseling: concepts and cases, Wadsworth Brooks/Cole.
Schutte NS, Malouff JM, Hall LE, Haggerty DJ, Cooper JT, Golden CJ, Dornheim, L (1998). Development and validation of a measure of emotional intelligence. Pers Individ. Differ. 25(2):167-77.
Stahl L, Pry R (2005). Attentional flexibility and perseveration: developmental aspects in young children. Child Neuropsychol. 11(2):175-189.
Stevens AD (2009). Social problem-solving and cognitive flexibility: relations to social skills and problem behavior of at-risk young children. Unpublished Doctorate Thesis, Seattle Pacific University.
Szentagotai A, Freeman A (2007). An analysis of the relationship between irrational beliefs and automatic thoughts in predicting distress. J. Cogn. Behav. Psychother. 7(1):1-9.
Sü Eröz S (2011). Yönetim ve organizasyon bilim dalı duygusal zeka ve iletişim arasındaki ilişki: bir uygulama. Yayımlanmamış Doktora Tezi, Uludağ Üniversitesi Sosyal Bilimler Enstitüsü, Bursa.
Şahin NH, Durak A (1994). Kısa Semptom Envanteri: Türk gençleri için

uyarlanması. Türk Psikoloji Dergisi 9(31):44-56.
Şahin NH, Güler M, Basım HN (2009). A tipi kişilik örüntüsünde bilişsel ve duygusal zekânın stresle başa çıkma ve stres belirtileri ile ilişkisi. Türk Psikiyatri Dergisi 20(3):243-254.
Taghavi MR, Goodarzi MA, Kazemi H, Ghorbani M (2006). Irrational beliefs in major depression and generalized anxiety disorders in an Iranian sample: a preliminary study. Percept. Mot. Skills 102(1):187-196.
Tatar A, Tok S, Saltukoğlu G (2011). Gozden gecirilmiş Schutte Duygusal Zeka Olceğinin Turkçe'ye uyarlanması ve psikometrik ozelliklerinin incelenmesi. Klinik Psikofarmakoloji Bulteni 21(4):325-338.
Tuğrul C (1999). Duygusal zeka, Klinik Psikiyatri 1:12-20.
Ümit N (2010). Ergenlerin duygusal zekaları ve saldırganlık düzeyleri arasındaki ilişkinin incelenmesi. Yayımlanmamış Yüksek Lisans Tezi, Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.
Williams FM, Fernandez-Berrocal P, Extremera N, Ramos N, Joiner TE (2004). Mood regulation skill and the symptoms of endogenous and hopelessness depression in Spanish high school students. J. Psychopathol. Behav. Assess. 26(4):233-240.
Wu Y-C (2011). Job stress and job performance among employees in the Taiwanese finance sector: the role of emotional intelligence. Soc. Behav. Pers. 39(1):21-32.
Yaşarsoy E (2006). Duygusal zeka gelişim programının, eğitilebilir zihinsel engelli öğrencilerin davranış problemleri üzerindeki etkisinin incelenmesi. Yayımlanmamış Yüksek Lisans Tezi, Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, Adana.
Yip JA, Côté S (2013). The emotionally intelligent decision maker: emotion-understanding ability reduces the effect of incidental anxiety on risk taking. Psychol. Sci. 24(1):48-55.