

International Journal of Psychology and Educational Studies

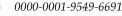


ISSN: 2148-9378

Interpersonal Cognitive Distortions and Anxiety: The Mediating Role of Emotional Intelligence

Gülin YAZICI ÇELEBݹ, Feridun KAYA²

- ¹ Faculty of Letters, Gümüşhane University, Gümüşhane, Turkey
- ² Faculty of Letters, Atatürk University, Erzurum, Turkey
- D 0000-0002-6779-9123



ARTICLE INFO

Article History Received 19.12.2021 Received in revised form 08.05.2022 Accepted 21.05.2022 Article Type:Research

ABSTRACT

In this study, interpersonal cognitive distortions and emotional intelligence were identified as predictors of anxiety. In this regard, this study was conducted to describe the connections among interpersonal cognitive distortions, anxiety, and emotional intelligence and disclose the mediation of emotional intelligence between interpersonal cognitive distortions and anxiety. A total of 235 university students (135 females and 100 males) were surveyed for the correlational model in the study. The Beck Anxiety Inventory, the Schutte Emotional Intelligence Test, a Personal Information Form, and the Interpersonal Cognitive Distortions Scale were utilized for collecting the data. According to the findings, emotional intelligence, interpersonal cognitive distortions, and anxiety have statistically significant negative correlations. Furthermore, it was found that interpersonal cognitive distortions had a positive and statistically significant correlation with anxiety. Based on the mediation analyses conducted in the study, it was determined that the association between interpersonal cognitive distortions and anxiety was partially mediated by emotional intelligence. As a result, the indirect influence of interpersonal cognitive distortions on anxiety is statistically significant. Experts who design programs to help persons with anxiety and who study family therapy are expected to benefit from the findings of the study.

© 2022IJPES. All rights reserved

Keywords:

Anxiety, interpersonal cognitive distortions, emotional intelligence

1. Introduction

The origins of the concept of anxiety, a disorder frequently mentioned today, date back to ancient philosophers. It is stated that philosophers, religious leaders, and scientists have been doing studies on understanding and coping with anxiety until today (Clark & Beck, 2010). The term "anxiety" dates back to the Greek word "angh," meaning tension or contraction (Rachman, 2004). Based on the German word "angst," Bannister (1985) stated that anxiety could be defined as a persistent fear that can be experienced at a significant or low intensity. Anxiety may appear in different forms and at different degrees of intensity (Bourne, 1995). The dimension of anxiety shows its effect on the individual in a wide range, from positive to negative. While moderate anxiety can be a source of energy by raising the individual's performance and energy and motivating him/her for success (Freeman et al., 2004), high-level anxiety can cause just the opposite (Ayyıldız et al., 2014; Dordinejad et al., 2011; Matzin et al., 2013; Özerkan, 2003; Steinmayr et al., 2016; Vitasari et al., 2010). Moderate anxiety is a desirable situation, while not experiencing anxiety in the face of daily difficulties, including failure and loss, is considered a problem. As it can be understood from here, the problem is not about the presence of anxiety but about its proportionality with the current situation. States of anxiety that are inharmonious with the current situation and those experienced severely lessen the productivity of the person, lead to a worsening

¹Corresponding author's address: Ataturk University/Department of Psychology, Erzurum /Turkey e-mail: feridunkaya25@gmail.com

in interpersonal relations, and emerge together with some physical symptoms that are considered pathological (Karamustafalıoğlu & Akpınar, 2010).

Studies conducted on the causes of anxiety disorders have shown that genetic, biological, cognitive, and social factors, nature, family processes, commitment, and psychological and environmental factors play a considerable role (Aktay & Hızlı Sayar, 2021; Atkinson et al., 1999; Mantar et al., 2011). Anxiety disorders can have devastating consequences. Individuals with this problem may experience impairment in psychosocial functions, decrease in quality of life, and deterioration in interpersonal relationships (Aktay & Sayar, 2021; Gültekin & Dereboy, 2011; Işık & Işık, 2006; Okyay et al., 2012). It is thought that it is important to identify the factors regarding anxiety, which poses a risk of reaching a level that can lead to devastating consequences in the individual's life, to keep anxiety under control, and to determine the variables that will be effective in living in harmony with the current situation. The argument that emotions are determined by thoughts reminds us of the cognitive approach. According to the cognitive approach, the element that reveals the emotion as a result of events is the thoughts about it rather than the event itself (Beck, 1991). Errors in the cognitive process during the interpretation of events may cause the resulting emotion and response to be inconsistent with the event. In addition, according to this approach, the repetitiveness of cognitive distortions causes mood disorders such as anxiety and depression (Leahy, 1997). Based on this information, "interpersonal cognitive distortions (ICD)," which is thought to be effective on anxiety, was included in this study as a variable.

One of the most important assumptions of the cognitive approach is that thoughts are the basis of emotions and behaviors (Beck, 1991; Corey, 2016). Rait et al. (2010) maintain that thoughts are the cause, creator, and supporter of behavior. For this reason, according to the cognitive approach, understanding behaviors and emotions is possible only by understanding the cognitive content. Albert Ellis, one of the important theorists, developed a model for this situation, which he called ABC, and tried to explain the process by schematizing it. In the model, A is the behavior of the individual, a phenomenon, or a happening; B is the person's opinions and thoughts about the happening; C is the individual's reaction to the happening. Ellis (1991) states that it is B, not A, that causes C. In other words, the individual's thoughts about the event shape his/her feelings, and therefore his/her response. In case of an error in the way of thinking, both the emotion and the response may be inconsistent with the current situation. This situation is explained through schemas, cognitive distortions that occur due to schemas, and automatic thoughts. Though their foundations are based on childhood and develop in the process, cognitive schemas are generally considered resistant to change and sometimes even permanent features (Atkinson et al., 1999). Beliefs and assumptions formed as a result of the individual's experiences regarding events, people, and the environment make up cognitive schemas. These schemas form the basis of the rules in the individual's information processing (Wright et al., 2006). Each individual's schema is unique as it is based on their own experiences, so responses to the same event may differ from person to person.

According to Beck (1991), schemas are the introduction of prejudices into the information processing cycle. Life events are adapted to existing schemas and interpreted by the individual, generating a kind of meaning framework. Cognitive schemas are considered to be the source of automatic thoughts and cognitive distortions. Automatic thoughts, which can be considered a reflection of schemas, appear in the human mind almost like a reflex (Beck, 1991). These thoughts, which are specific to the individual, guide the emotional state. Automatic thoughts are noticed in the emotions they cause rather than in themselves and have a flying nature that passes quickly through the human mind (Türkçapar, 2011). When automatic thoughts are categorized according to certain characteristics, cognitive distortions occur. The connection between dysfunctional schemas and automatic thoughts is provided by cognitive distortions. While the newly received information is being processed, it is often distorted to adjust to the existing schemas, and distorted evaluations rise to the degree of awareness as automated reflections (Türkçapar, 2011). Automated reflections usually emerge in an exaggerated or distorted way in individuals with psychological problems.

Cognitive distortions are also expressed as systematic errors that lead to misunderstandings and erroneous assumptions (Corey, 2016). According to Beck (1991), cognitive distortions are expressed as a tendency to interpret, evaluate, and perceive external stimuli negatively regardless of what they actually are and the meaning they carry. As a result of the categorization studies, ten different cognitive distortions were defined: "mindreading," "all-or-nothing thinking," "personalization," "emotional reasoning," "mental filtering," "catastrophizing," "magnification or minimization," "overgeneralization," "labeling," and "should

statements." It is stated that especially individuals with emotional problems tend to make mistakes consistently in their thoughts and that these mistakes result from systematic negatively biased thinking. This situation strengthens the idea that anxiety and cognitive distortions may be related.

Emotional intelligence (EI) is a concept that is also related to how individuals manage their emotions and how they deal with negative emotions (Druskat et al., 2006; Reeves, 2005; Zeidner et al., 2004). EI is expressed as the sum of a number of competencies that may be summarized as the ability to clarify the feelings correctly, associate them with cognitive situations, make sense of them, and see their effects on different situations (Ashforth & Humpry, 1995). Since EI was thought to be associated with cognitive distortions, its cognitive dimension, and anxiety with its emotion dimension, it was included in the present research as a mediator factor. It is reported in the literature that emotions have an effect on reasoning processes (İşmen, 2001). Briefly, it is stated that EI skills and cognitive skills interact (Maboçoğlu, 2006). Salovey and Mayer were the first to introduce the idea of EI comprehensively (1990). Its definition is one's awareness of his/her own and others' emotions, ability to distinguish between them, and reflecting this on their behavior (Mayer & Salovey, 1993). Goleman (2000), who made the concept of EI popular and known worldwide through his book, defined EI as the capacity to "know what we feel and to manage the feelings that put us in a difficult situation; motivate ourselves to achieve tasks and goals; be creative and improve our weaknesses; be aware of others' feelings and manage relationships effectively." Cooper and Sawaf (1998), on the other hand, define it as the power that reveals the existing potential of individuals and moves them towards a goal. Konrad and Hendl (2003) state that EI is also a kind of intelligence adding that individuals' recognition of themselves and their emotions and using their emotions healthily are the components of EI. Emotional intelligence is also considered a social skill related to social relationships, such as being able to effectively direct emotional situations (e.g., fear, anger, and depression), being able to motivate oneself, and being able to empathize. Reflecting on these definitions, it can be said that EI will be effective in individuals' relationships with themselves and their social relationships.

Researchers generally describe EI with the aspects of emotional competence, such as consciousness and expression of feelings, awareness of others' feelings, and managing emotions (Atay, 2002; Boyatzis et al., 2000; Druskat et al., 2006; MacCann et al., 2020; Ural, 2001). There are findings in the literature indicating that EI is linked to anxiety and depression (Batool & Khalid, 2009; Fernandez-Berrocal et al., 2006; Salguero et al., 2012; Foster et al., 2018). According to Mayer and Salovey (1993), individuals who perceive their emotions clearly can also perceive the changes in their emotional state, and they can cope more easily with the negative consequences of emotions by making use of this situation. Similarly, Alumran and Punamaki (2008) report that understanding emotions correctly can be a guide in understanding and coping with the reactions caused by emotions. All this information supports the idea that EI may have a mediating effect. Studies have shown that EI can be changed and developed (Goleman, 2000; Mayer et al., 2003). It is crucial to consider whether EI can aid in anxiety in this scenario. If there is a link, it can be mentioned that someone who develops EI can better manage and lessen anxiety and the negative impacts of cognitive distortions. This research was planned to explore the correlation of ICD with anxiety as well as the function of EI in mitigating this relationship. The following hypotheses were tested for this aim:

- Hypothesis 1: Anxiety is significantly predicted by ICD.
- H₂: EI mediates the correlation between ICD and anxiety.

2. Method

2.1. Research Model

A correlational research design, which is among quantitative research methodologies, was employed in this research. A correlational questionnaire model is defined as a study paradigm in which the co-change of a relationship between two or more variables is attempted to be determined (Fraenkel et al., 2012; Karasar, 2009). This study targeted to look at the influence of ICD and EI on anxiety prediction.

2.2. Participants

This study comprised 235 university students, with 135 women (57.45%) and 100 men (42.55%) participating. Participants' ages ranged between 18 and 32 (Mean age = 22.42; SD = 3.54). Prior to the study, a power analysis was conducted to calculate the sample size on the G*Power 3.1 software by picking two predictor variables,

an alpha level of 0.05, a power ratio of 1 - .95, and a medium effect size (Balkin & Sheperis, 2011). The results of the analysis indicated that at least 107 participants were necessary for the multiple regression analysis (Faul et al., 2009). Eventually, 235 subjects were recruited for the study. The sample size can be said to be fairly large. Of the participants, 54 were from the theology department (22.98%), 69 were from the psychology department (29.36%), 58 were from the social services department (24.68%), 15 were from the public relations department (6.38%), and 39 were from the sociology department (16.60%). According to the statements of the participants, 19 (8.09%) had a poor income level, 148 (62.98%) had a middle-income level, and 68 (28.90%) had a good income level. It was found that the mothers of 193 (82.13%) of the participants had secondary school education or below, and 42 (17.87%) had high school education. Also, the fathers of 135 (57.45%) of the participants had secondary school education and below, 72 (30.64%) had high school education, and 28 (11.91%) had an undergraduate degree. In addition, 35 (14.89%) of the participants had received psychological support before, while 200 (85.11%) had not received any psychological support at all.

2.3. Data Collection Tools

Sociodemographic Data Form: This form was prepared by the researchers. There are some questions about gender, the education level of the parents, the perceived economic level, and the status of receiving psychological support in this form.

The Schutte Emotional Intelligence Test: Developed by Schutte et al. (1998), this test is used to assess the features of a person's EI. Tatar et al. conducted the Turkish adaption study of the scale (2017). This 33-item scale is evaluated on a five-point Likert-type scale with options ranging between "strongly disagree," assigned the highest score, and "strongly agree," assigned the lowest score. As a result, the scale might range from 33 to 165 points. Emotional intelligence scores above a certain threshold indicate an EI of a high level. The one-factor structure was confirmed by an analysis conducted to assess the factor structure, reliability, and validity of the scale. The coefficient showing internal consistency of the scale was determined as .86 (Tatar et al., 2017). This coefficient was calculated as .74 in the current study.

The Beck Anxiety Inventory: The developers of this scale are Beck et al. (1988). Their purpose was to distinguish anxiety from depression. It investigates both the subjective level of anxiety and somatic symptoms. It is a scale that a person has to fill up on his/her own. The scale has 21 items, which are evaluated with the following options: "0, none"; "1, mild," "2, moderate," and "3, severe". The scores on the scale vary from 0 to 63. High scores indicate high levels of anxiety that the individual experiences. The validity and reliability studies for BAI were undertaken in Turkey by Ulusoy et al. (1998). The coefficient indicating the internal consistency of the overall measure was reported as .93. This coefficient was calculated as .90 for the overall measure in this study.

The Interpersonal Cognitive Distortions Scale: Developed by Hamamcı and Büyüköztürk (2003), this scale is used to examine people's cognitive distortions in interpersonal relationships. The scale has 19 items, which are graded with options in the range of "1, strongly disagree" and "5, strongly agree." The three dimensions on the scale are "unrealistic relationship expectations," "intimacy avoidance," and "reading." The three dimensions of the measure are added to get the overall score for ICD. High scores, according to Hamamcı and Büyüköztürk (2003), suggest high ICD. The test-retest and internal consistency methods were employed to verify the dependability of this scale. The internal consistency coefficient of the overall scale was calculated as .67. This coefficient was calculated as .75 in the context of this study.

2.4. Data Collection

The investigation was accepted by Gümüşhane University's Ethics Committee for Scientific Research and Publications (issue: 2020/7; date: July 8, 2020). The measurement instruments to be used in the study were transformed into a form and delivered to students from various faculties at Gümüşhane University after gaining approval from the Ethics Committee. A researcher individually handed the forms to the student volunteers in the classes. The consent form with a tick came after a brief introduction to the measurement tools used in the study. Students who decided to join the research read the form and checked the box. The measurement devices took around ten minutes to complete.

2.5. Statistical Analysis

Various statistical arrangements were made on the study data before the analyses were initiated. It is necessary to perform extreme value, missing value, normality distribution, and collinearity analyses on the data (Field, 2013). Initially, a missing value analysis was performed in the study, and it indicated that the data set did not have any missing values. In the extreme value analysis, standard z scores were generated from the scores for the variables that were obtained, and an examination was done on the data set to find out if the values were in the range between -3 and +3. As a result, the values were found to be in the desired range (Tabachnick & Fidell, 2014). Then, the kurtosis and skewness measurements were applied to the values of the variables obtained from the data set. As seen in Table 1, the normality assumption of the variables was satisfied as the values of kurtosis and skewness, which are recognized as established criteria in the related literature, were between +2 and -2 (George & Mallery, 2019).

The descriptive statistics of all variables were calculated. To test the hypotheses of the study, a regression-based mediation analysis was performed. The bootstrap method was implemented for mediation analysis. Through the bootstrap method, which makes re-sampling possible to produce very large data sets from the existing data set, the sample size of 235 people was re-sampled as 10000 at a 95% confidence interval. Thus, it was possible to ensure more reliable results by performing the analyses on larger data sets produced by resampling. Within the scope of the analysis, first, the direct effect of ICD on anxiety was calculated. Later, EI was added to the model. EI was determined to have a direct impact on the correlation of ICD with anxiety. In the calculation of the bootstrap method, the significance of the indirect effect was tested by using model 4 in the SPSS Macro Process (Preacher & Hayes, 2008). Confidence intervals that did not include the value zero in the results indicated that the indirect influence was significant. The research data was analyzed on the SPSS 21.00 software package.

2.6. Ethical

Ethical Committee Approval is required by applying to Gümüşhane University Ethical Committee in the present study. Ethical Committee Approval's information is presented below:

- Date of decision: 29.12.2021
- The number of the approval document: E-95674917-108.99-71601

3. Findings

3.1. Preliminary analysis

Negative significant correlations were identified between EI and ICD (r = -.19, p < .01) and anxiety (r = -.52, p < .001) according to correlation analysis results. ICD and anxiety, on the other hand, had a strong positive connection (r = .39, p < .001).

Table 1. The Results of Descriptive Statistics and Relationships Between Variables

	, ,							
	Mean	SD	Skewness	Kurtosis	1	2	3	
1. Anxiety	15.45	9.65	.40	54	1			
2. ICD	51.25	9.42	.14	.20	.39***	1		
3. EI	126.81	10.04	43	.31	52***	19**	.1	

^{***}p < .001, **p < .01; ICD: Interpersonal Cognitive Distortions; EI: Emotional Intelligence

3.2. Findings about Mediation Analysis

The total effect of ICD on anxiety was found to be significant (B = .40, t = 6.40, p < .001) when the non-standardized regression coefficients were analyzed. Furthermore, the effects of ICD on EI (B = -.21, t = -3.03, p < .001) and EI on anxiety (B = -.45, t = -8.61, p < .001) were shown to be significant. Preacher & Hayes (2008) found that EI played a mediation role in the link between ICD and anxiety (ab = .09, 95% CI [.0346,.1526]). The examination of EI, however, indicated that ICD had a predictive influence on anxiety, which was significant (B = .30, t = 5.53, p < .001). This shows that partial mediation has occurred. Some of the connections between ICD and anxiety were direct, whereas others were indirect via EI according to partial mediation (Preacher & Hayes, 2008). In addition to the mediation analysis, ICD were found to explain 4% of the variance in EI and 15% of the variance in anxiety levels when combined with EI.

Table 2. The Results of the Mediation Analysis and Bootstrapping Process

	ab	95% CI		а	h	C	C^{l}
	ш	LL	UL	- и	U	C	C
Emotional Intelligence	.09	.035	.153	21**	45***	.40***	.30***

^{***}p < .001, **p < .01, ab = Estimated indirect effect. Pathc¹ direct effect, path c total effect.

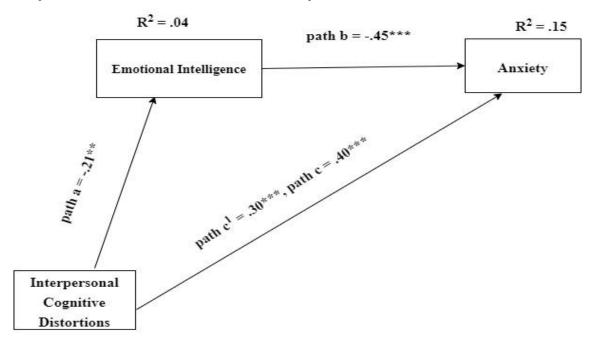


Figure 1. The Prediction of Anxiety by ICD Through the Mediation of Emotional Intelligence

4. Conclusion and Discussion

The results revealed that ICD had a positive and substantial correlation with anxiety but a statistically noteworthy negative correlation with EI. The correlation of EI with anxiety was also negative and statistically noteworthy.

The cognitive theory emphasizes the importance of cognitive processes on the individual's emotions and the resulting reactions. According to Beck (1991), who was one of the important representatives of the theory, incongruous emotions can be explained by cognitive processes. It is stated that the systematic errors in cognitive processes and the tendency towards negativity that arise due to them are effective in the formation of anxiety (Beck et al., 1985; Weems et al., 2001). Reflecting on these findings, the results of the present research can be evaluated to be in parallel with the results of studies on this subject in the literature. For example, Cannon and Weems (2010) found a strong positive correlation between anxiety and cognitive distortions. In their cross-sectional study on adolescents, Maric et al. (2011) determined that adolescents with high anxiety had higher cognitive distortion levels than those with low anxiety. Another study on adolescents showed a significant positive correlation between obsessive-compulsive disorders experienced by individuals and ICD (Demir & Kaya, 2016). Cook et al. (2019) stated in their study with young people that cognitive distortions has a positive and substantial correlation with social anxiety. Likewise, in their study on young individuals aged 18-25 years, Wilson et al. (2011) reported a significant positive correlation between anxiety and cognitive distortions. In line with this research, in their study with university students, Başbuğ et al. (2017) concluded that ICD had a strong positive correlation with separation anxiety. Similar to other groups, studies conducted with adult samples found that there was a positive relationship between cognitive distortions and anxiety (Kuru et al., 2018; Ozdel et al., 2014). In addition, studies investigating the relationship between social anxiety and cognitive distortions showed matching results (Creswell et al., 2014; Karabacak et al., 2015; Kaplan et al., 2017). In the light of all this information, it can be said that cognitive processes have a decisive effect on mood and that individuals' anxiety levels can be improved through studies to be conducted on errors in cognitive processes.

Research findings indicate an inverse and significant relationship between cognitive distortions and EI. Emotions can be defined as responses to stimuli. Lazarus (1984) stated that in the process related to emotions, the individual perceives, interprets, and evaluates the stimuli. In other words, the way to emotions passes through cognitive processes. Many studies emphasize that impairments in the thought system affect emotions (Cox & Nelson, 2008; DePape et al., 2006; Tiba, 2010) and that cognitive distortions lead to negative emotions and mood disorders (Ingram et al., 2007; Wilson et al., 2011). As such a strong correlation exists between thought and emotion, it is possible to say that EI, which can be summarized as individuals' capacity to notice and understand their own emotions and the emotions of those around them, will also be affected by cognitive processes. Research results also point to this situation. Research into the correlation of EI with cognitive distortions is scarce in the literature. While some of these limited number of studies, which are similar to the present study, showed a significant negative correlation between EI and cognitive distortions (Ghafari, 2016), others concluded that there was no relationship between EI and cognitive distortions (Covino, 2013). In addition, it is stated in the literature that positive thought patterns predict EI (Barbuto & Story, 2010), an improvement in cognitive distortions will reduce negative affect (Sears & Kraus, 2009), cognitive distortions influence the way emotions are expressed (Mercan et al., 2021), and that unreasonable beliefs have a significant correlation with EI (Keser & Traş, 2019).

The results of the present research indicated that EI had a significant negative correlation with anxiety. EI affects competencies, such as recognizing, understanding, and expressing emotions correctly, grasping the effects of emotions on events, and integrating them with cognitive processes (Law et al., 2004). It is an expected result that EI is associated with anxiety, which has an intense emotional content. In the literature, it is stated that the source of anxiety has an exaggerated, catastrophic, or distorted threatening thought content (Leahy, 1997). Schemas and beliefs that an individual has about danger can predispose the individual to anxiety. Disturbances in the cognitive structure can pave the way for the emergence and maintenance of high levels of anxiety when exposed to a trigger (Wells, 2006). It is seen that various types of anxiety have been discussed in the literature, and there are research findings that support this view. The results of many studies have shown that EI has a significant negative correlation with social anxiety (Abdollahi et al., 2015; Aslan et al., 2020; Jacobs et al., 2008; Kocaoğlu & Çekiç, 2021; Summerfeldt et al., 2006; Tezelli & Dilmaç, 2021). The results obtained from the study indicated that EI mediated the correlation between anxiety and ICD. Emotional intelligence, which is a skill, can be built. It is thought that the findings to be obtained through experimental studies on this topic will contribute to the development of effective models for coping with anxiety. In addition, based on the research findings, it can be suggested that interventions in cognitive distortions will positively affect individuals' anxiety levels. It can also be said that these results are important for studies on anxiety, which may have compelling effects on the individual.

5. Limitations and Recommendations

This study has some limitations. Firstly, individuals outside the clinical setting were included in the study. Considering that the starting point of the anxiety variable is individuals with clinical characteristics, future studies may include groups with different characteristics. Second, the participants of the study were in emerging adulthood. Since anxiety also occurs during adolescence or advanced stages of development, similar variables can be studied among adolescents and individuals in mid-adulthood or late adulthood periods. Third, the present study is a cross-sectional study. Longitudinal studies can be planned to investigate whether the correlation of ICD with EI and anxiety continues and to identify other possible variables that may affect this process. The research findings highlight that EI partially mediates the correlation between anxiety and cognitive distortions. The emotional intelligence of individuals with a high level of ICD is negatively affected by this situation, and it can indirectly increase the level of anxiety. In other words, part of the strength of the relationship between ICD and anxiety can be explained by emotional intelligence. It is thought that our research findings will shed light on the studies to be carried out on this subject. The findings of this study can provide data for experimental studies to be conducted since EI can be developed and ICD can be corrected with various intervention programs. In this regard, it is recommended to carry out studies with larger sample groups and different variables. Examples of these variables can be listed as problem-solving skills, the level of mindfulness, solution-oriented thinking skills, and cognitive flexibility. In conclusion, individuals' anxiety levels decreased with the increase in their EI characteristics. Although individuals generally try to stay away from anxiety, they may experience the conflict created by stress and anxiety in general (Feist & Feist, 2009).

Considering the developmental characteristics of individuals in emerging adulthood, it is known that they need to have various friendship relationships. It can be said that emerging adults who want to have such relationships can develop the kind of relationships they want to the extent that they can implement the features of EI such as empathy, adaptability, respect, and understanding and expressing emotions (Goleman, 2016). At this point, researchers can lower anxiety levels experienced by individuals with high levels of interpersonal cognitive distortion by preparing programs to develop EI and contributing to the development of their characteristics, such as empathy, adaptability, ability to understand body language, and understanding and expressing emotions. It is thought that with the development of EI, the individual will be able to establish healthier relationships with other individuals. As a result, the foundations of close relationships will be sounder, and thus, the psychosocial function of the individual will increase.

6.References

- Abdollahi, A., Yaacob, S. N., Talib, M. A., & Ismail, Z. (2015). Social anxiety and cigarette smoking in adolescents: The mediating role of emotional intelligence. *School Mental Health*, 7(3), 184–192, https://doi.org/10.1007/s12310-015-9141-4
- Aktay, M.,& Hızlı Sayar, G. (2021). Psikiyatrik bozuklukların psikososyal yönü [Psychosocial aspect of psychiatric disorders]. *Kıbrıs Türk Psikiyatri ve Psikoloji Dergisi*, 3(1), 48–55. https://doi.org/10.35365/ctjpp.21.1.06
- Alumran, J.,& Punamäki, R. (2008). Relationship between gender, age, academic achievement, emotional intelligence, and coping styles in Bahraini adolescents. *Individual Differences Research*, 6(2), 104–119.
- Ayyıldız, T., Şener, D. K., Veren, F., Kulakçı, H., Akkan, F., Ada, A., ... &Dinç, G. (2014). Hemşirelik öğrencilerinin akademik başarılarını etkileyen faktörler [Factors influencing the academic achievement of nursing students]. *Acıbadem Üniversitesi Sağlık Bilimleri Dergisi*, 5(3), 222–228.
- Ashforth, B. E.,& Humphrey, R. H. (1995). Emotion in the workplace: A reappraisal. *Human Relations*, 48(2), 97–125. https://doi.org/10.1177/001872679504800201
- Aslan, A. E., Kalkan, N., Başman, M., & Yaman, K. G. (2020). A study for the prediction of the social anxiety level of university students through emotional intelligence features. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 10(57), 201–228.
- Atay, K. (2002). Okul müdürlerinin duygusal zekâ düzeyleri ile çatışmaları çözümleme stratejileri arasındaki ilişki [Relationship between school principal's emotional intelligence and conflict resolution strategies]. *Kuram ve Uygulamada Eğitim Yönetimi, 31,* 344–355.
- Atkinson, R. L., Atkinson, R. C., Smith, E. E., Bem, D. J., & Hoeksema, S. N. (1999). *Introduction to psychology* (13th ed.). Cengage Learning.
- Balkin, R. S., & Sheperis, C. J. (2011). Evaluating and reporting statistical power in counseling research. *Journal of Counseling & Development*, 89(3), 268–272. https://doi.org/10.1002/j.1556-6678.2011.tb00088.x
- Bannister, D. (1985). The free-floating concept of anxiety. In E. Karas (Ed.), *Current issues in clinical psychology*(Volume 2, pp. 227–238). Plenum Press.
- Barbuto, J. E., Story, J. S. (2010). Antecedents of emotional intelligence: An empirical study. *Journal of Leadership Education*, 9(1), 144–153.
- Başbuğ, S., Cesur, G., & Batigün, A. D. (2017). Perceived parental styles and adult separation anxiety: The mediating role of interpersonal cognitive distortions. *Turkish Journal of Clinical Psychiatry*, 28(4), 255–267. https://doi.org/10.5080/u14889
- Batool, S. S.,&Khalid, R. (2009). Low emotional intelligence: A risk factor for depression. *Journal of Pakistan Psychiatric Society*, 6(2), 65–72.
- Beck, A. T. (1991). Cognitive therapy and the emotional disorders. Penguin.
- Beck, A. T., Emery, G., & Greenberg, R. L. (1985). Anxiety disorders and phobias: A cognitive perspective. Basic Books.

- Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting & Clinical Psychology*, 56(6), 893–897. https://doi.org/10.1037/0022-006X.56.6.893
- Bourne, E. J. (1995). The anxiety and phobia workbook. MJF Books.
- Boyatzis, R., Goleman, D., & Rhee, K. (2000). Clustering competence in emotional intelligence: Insights from the emotional competence inventory. In R. Bar-On & J.D.A. Parker (Eds.), *The handbook of emotional intelligence*(pp. 343–362). Jossey-Bass.
- Cannon, M. F.,& Weems, C. F. (2010). Cognitive biases in childhood anxiety disorders: Do interpretive and judgment biases distinguish anxious youth from their non-anxious peers?. *Journal of Anxiety Disorders*, 24(7), 751–758. https://doi.org/10.1016/j.janxdis.2010.05.008
- Clark, D. A., & Beck, A. T. (2010). Cognitive therapy of anxiety disorders: Science and practice. Guilford Press.
- Cook, S.I., Meyer, D., & Knowles, S. R. (2019).Relationships between psychoevolutionary fear of evaluation,cognitive distortions, and social anxiety symptoms: A preliminary structural equation model. *Australian Journal of Psychology*, 71(2), 92–99. https://doi.org/10.1111/ajpy.12215
- Cooper, R. K., & Sawaf, A. (1998). Executive EQ: Emotional intelligence in leadership and organizations. Penguin.
- Corey, G. (2016). Theory and practice of counseling and psychotherapy, enhanced. Cengage Learning.
- Covino, F. E. (2013). *Cognitive distortions and gender as predictors of emotional intelligence* [Doctoral Dissertation]. Northcentral University.
- Cox, J. E.,& Nelson, D. B. (2008). Quantifying emotional intelligence: The relationship between thinking patterns and emotional skills. *Journal of Humanistic Counseling, Education, & Development, 47*(1), 9–25. https://doi.org/10.1002/j.2161-1939.2008.tb00044.x
- Creswell, C., Murray, L., & Cooper, P. (2014). Interpretation and expectation in childhood anxiety disorders:

 Age effects and social specificity. *Journal of Abnormal Child Psychology*, 42(3), 453–465. https://doi.org/10.1007/s10802-013-9795-z
- Demir, M.,& Kaya, F. (2016). Obsesif kompulsif bozukluk ile ilişkilerle ilgili bilişsel çarpıtmalar arasındaki ilişkinin yapısal eşitlik modeli ile incelenmesi[Analysis of the relationship between obsessive compulsive disorder and interpersonal cognitive distortions through structural equation modeling]. *Atatürk Üniversitesi Sosyal Bilimler Dergisi*, (57), 175–186.
- DePape, A. R., Hakim-Larson, J., Voelker, S., Page, S., & Jackson, D. (2006). Self-talk and emotional intelligence in university students. *Canadian Journal of Behavioral Science*, 38, 250–260. https://doi.org/10.1037/cjbs2006012
- DordiNejad, F. G., Hakimi, H., Ashouri, M., Dehghani, M., Zeinali, Z., Daghighi, M. S., & Bahrami, N. (2011). On the relationship between test anxiety and academic performance. *Procedia-Social and Behavioral Sciences*, 15, 3774–3778. https://doi.org/10.1016/j.sbspro.2011.04.372
- Druskat, V. U., Mount, G., & Sala, F. (2006). *Linking emotional intelligence and performance at work: Current research evidence with individuals and groups*. Lawrence Erlbaum Associates.
- Ellis, A. (1991). The revised ABC's of rational-emotive therapy (RET). *Journal of Rational Emotive & Cognitive-Behavior Therapy*, 9(3), 139–172. https://doi.org/10.1007/BF01061227
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A-G. (2009). Statistical power analysesusing G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149–1160. http://dx.doi.org/10.3758/BRM.41.4.1149
- Feist, J., & Feist, G. J. (2009). Theories of personality (7th ed.). McGraw Hill.
- Fernandez-Berrocal, P., Alcaide, R., Extremera, N., & Pizarro, D. (2006). The role of emotional intelligence in anxiety and depression among adolescents. *Individual Differences Research*, 4(1),16–27.
- Field, A. (2013). Discovering statistics using IBM SPSS (4th ed.). Sage Publications.

- Foster, B., Lomas, J., Downey, L., & Stough, C. (2018). Does emotional intelligence mediate the relationship between mindfulness and anxiety and depression in adolescents. *Frontiers in Psychology*, 9, 2463. https://doi.org/10.3389/fpsyg.2018.02463
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). How to design and evaluate research in education (8th ed.). McGraw Hill Education.
- Freeman, A., Pretzer, J., Fleming, B., & Simon, K. M. (2004). *Clinical applications of cognitive therapy* (2nd ed.). Springer Science+Business Media.
- George, D.,& Mallery, P. (2019). IBM SPSS statistics 25 step by step: A simple guide and reference(15th ed.). Routledge.
- Ghafari, E. (2016). The relationship between differentiation and emotional intelligence and cognitive distortions and quality of life in couples [Masters Thesis]. University of Mohaghegh Ardabili.
- Goleman, D. (2000). Emotional intelligence: Issues in paradigm building. In D. Goleman, & C. Cherniss (eds.), The Emotionally intelligent workplace: How to select for, measure, and improve emotional intelligence in individuals, groups, and organizations. Jossey-Bass.
- Goleman, D. (2016). *Duygusal zeka: EQ neden IQ'dan daha önemlidir?*[Emotional intelligence: Why it can matter more than IQ?] (B. Seçkin Yüksel, Trans.). Varlık.
- Gültekin, B. D. & Dereboy, F. (2011). Üniversite öğrencilerinde sosyal fobinin yaygınlığı ve sosyal fobinin yaşam kalitesi, akademik başarı ve kimlik oluşumu üzerine etkileri [The prevalence of social phobia, and its impact on quality of life, academic achievement, and identity formation in university students]. *Türk Psikiyatri Dergisi*, 22(3), 150–158
- Hamamcı, Z.,& Büyüköztürk, Ş. (2003). İlişkilerle ilgili bilişsel çarpıtmalar ölçeği: Ölçeğin geliştirilmesi ve psikometrik özelliklerinin incelenmesi [Interpersonal Cognitive Distortions Scale: The development and psychometric characteristics of the scale]. *Çukurova Üniversitesi Eğitim Fakültesi Dergisi*, 2(25), 107–111.
- Ingram, R. E., Trenary, L., Odom, M., Berry, L., & Nelson, T. (2007). Cognitive, affective, and social mechanisms in depression risk: Cognition, hostility, and coping style. *Cognition and Emotion*, 2, 78–94. https://doi.org/10.1080/02699930600950778
- Işık, E.,& Işık, Y. (2006). Çocuk, ergen ve erişkinlerde anksiyete bozuklukları[Anxiety disorders in children, adolescents and adults]. Asimetrik Paralel.
- İşmen, A. E. (2001). Duygusal zekâ ve problem çözme [Emotional intelligence and problem solving]. *Marmara Üniversitesi Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi, 13,* 111–124.
- Jacobs, M., Snow, J., Geraci, M., Vythilingam, M., Blair, R. J. R., Charney, D. S., & Blair, K. S. (2008). Association between level of emotional intelligence and severity of anxiety in generalized social phobia. *Journal of Anxiety Disorders*, 22(8), 1487–1495. https://doi.org/10.1016/j.janxdis.2008.03.003
- Kaplan, S. C., Morrison, A. S., Goldin, P. R., Olino, T. M., Heimberg, R. G., & Gross, J. J. (2017). The Cognitive Distortions Questionnaire (CD-quest): Validation in a sample of adults with social anxiety disorder. *Cognitive Therapy and Research*, 41(4), 576–587. https://doi.org/10.1007/s10608-017-9838-9
- Karabacak, A., Yıldırım, N. Adıgüzel, E., & Kurt, E. (2015). Üniversite öğrencilerinin bilişsel çarpıtma ve sosyal kaygı düzeyleri arasındaki ilişkinin aile ile ilgili değişkenler açısından incelenmesi [Examination of the relationship between university students' cognitive distortions and social anxiety levels in terms of variables with family]. *Bayburt Üniversitesi Eğitim Fakültesi Dergisi*, 10(2), 516–533.
- Karamustafalıoğlu, O, & Akpınar, A. (2010). Anksiyete bozuklukları. Karamustafalıoğlu (Ed.), *Aile hekimleri için psikiyatri* içinde(ss. 71–88). MT Uluslararası Yayıncılık.
- Karasar, N. (2009). Bilimsel araştırma yöntemi(20. Baskı). Nobel.
- Keser, G., & Traş, Z. (2019). Üniversite öğrencilerinin akılcı olmayan inanç empatik eğilim ve duygusal zekâ düzeyleri arasındaki ilişkinin incelenmesi [Investigation of the relationship between university

- students' irrational belief, empathic tendency and emotional intelligence levels]. *Manas Sosyal Araştırmalar Dergisi*, 8(3), 2360–2380. https://doi.org/10.33206/mjss.525234
- Kocaoğlu, F.,& Çekiç, A. (2021). Üniversite öğrencilerinde sosyal kaygının yordayıcıları olarak duygusal zekâ ve otantiklik [Emotional intelligence and authenticity as predictors of social anxiety in university students]. *Hatay Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 18(48), 149–169.
- Konrad, S.,& Hendl, C. (2003). Duygularla güçlenmek. Duygusal zekâ sayesinde başarılı bir hayat [Empowering with emotions. A successful life thanks to emotional intelligence] (M. Taştan, Trans.). Hayat.
- Kuru, E., Safak, Y., Özdemir, İ., Tulacı, R. G., Özdel, K., Özkula, N. G., & Örsel, S. (2018). Cognitive distortions in patients with social anxiety disorder: Comparison of a clinical group and healthy controls. *The European Journal of Psychiatry*, 32(2), 97–104. https://doi.org/10.1016/j.ejpsy.2017.08.004
- Law, K. S., Wong, C.-S., & Song, L. J. (2004). The construct and criterion validity of emotional intelligence and its potential utility for management studies. *Journal of Applied Psychology*, 89(3), 483–496. https://doi.org/10.1037/0021-9010.89.3.483
- Lazarus, R. S. (1984). On the primacy of cognition. *American Psychologist*, 39(2), 124–129 https://doi.org/10.1037/0003-066X.39.2.124
- Leahy, R. L. (Ed.). (1997). Practicing cognitive therapy: A guide to interventions. Jason Aronson, Incorporated.
- Maboçoğlu, F. (2006). Duygusal zekâ ve duygusal zekânın gelişimine katkıda bulunan etkenler[Emotional intelligence and factors contributing to the development of emotional intelligence] [Master's Thesis].. Ankara University.
- MacCann, C., Jiang, Y., Brown, L. E. R., Double, K. S., Bucich, M., & Minbashian, A. (2020). Emotional intelligence predicts academic performance: A meta-analysis. *Psychological Bulletin*, 146(2), 150–186. http://dx.doi.org/10.1037/bul0000219
- Mantar, A., Yemez, B., & Alkın, T. (2011). Anksiyete duyarlılığı ve psikiyatrik bozukluklardaki yeri[Anxiety sensitivity and its importance in psychiatric disorders]. *Türk Psikiyatri Dergisi*, 22(3), 187–93.
- Maric, M., Heyne, D. A., van Widenfelt, B. M., & Westenberg, P. M. (2011). Distorted cognitive processing in youth: The structure of negative cognitive errors and their associations with anxiety. *Cognitive Therapy and Research*, 35(1), 11–20. https://doi.org/10.1007/s10608-009-9285-3
- Matzin, R., Shahrill, M., Mahalle, S., Hamid, M. H. S., & Mundia, L. (2013). A comparison of learning styles and study strategies scores of Brunei secondary school students by test anxiety, success attributions, and failure attributions: Implications for teaching at-risk and vulnerable students. *Review of European Studies*, 5(5), 119–127. http://dx.doi.org/10.5539/res.v5n5p119
- Mayer, J. D., & Salovey, P. (1993). The intelligence of emotional intelligence. *Intelligence*, 17(4), 420–443. https://doi.org/10.1016/0160-2896(93)90010-3
- Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2003). Measuring emotional intelligence with the MSCEIT V2.0. *Emotion*, *3*(1), 97–105. https://doi.org/10.1037/1528-3542.3.1.97
- Mercan, N., Bulut, M., & Yüksel, Ç. (2021). Investigation of the relatedness of cognitive distortions with emotional expression, anxiety, and depression. *Current Psychology*, 1–10. https://doi.org/10.1007/s12144-021-02251-z
- Okyay, P., Atasoylu, G., Önde, M., Dereboy, Ç., & Beşer, E. (2012). Kadınlarda yaşam kalitesi anksiyete ve depresyon belirtilerinin varlığında nasıl etkileniyor? Kesitsel bir alan çalışması[How is quality of life affected in women in the presence of anxiety and depression symptoms?]. *Türk Psikiyatri Dergisi*, 23(3), 178–188.
- Özdel, K., Taymur, I., Guriz, S.O., Tulaci, R. G., Kuru, E., & Turkcapar, M. H. (2014). Measuring cognitive errors using the Cognitive Distortions Scale (CDS): Psychometric properties in clinical and non-clinical samples. *Plos One*, *9*(8), e105956. https://doi.org/10.1371/journal.pone.0105956

- Özerkan, K.N.(2003). Üniversiteli basketbolcularda yarışma öncesi kaygı düzeyi ile performans arasındaki ilişki[The relationship between the level of pre-competition anxiety and performance in basketball players]. İstanbul Üniversitesi Spor Bilimleri Dergisi, 11(3), 4–6.
- Pereira, A. I. F., Barros, L., & Mendonça, D. (2012). Cognitive errors and anxiety in school aged children. *Psicologia:Reflexao e Critica*, 25(4), 817–823. https://doi.org/10.1590/S0102-79722012000400022
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879–891. https://doi.org/10.3758/BRM.40.3.879
- Rachman, S. (2004). Anxiety (2nd ed.). New York: Taylor & Francis Inc.
- Rait, S., Monsen, J.J., & Squires, G. (2010). Cognitive behaviour therapies and their implications for applied educational psychology practice. *Educational Psychology in Practice*, 26(2), 105–122. https://doi.org/10.1080/02667361003768443
- Reeves, A. (2005). Emotional intelligence: recognizing and regulating emotions. *AAOHN Journal: Official Journal of the American Association of Occupational Health Nurses*, 53(4), 172–176.
- Salguero, J.M., Extremera, N.,& Fernández-Berrocal, P. (2012). Emotional intelligence and depression: The moderator role of gender. *Personality and Individual Differences*, 53(1), 29–32.https://doi.org/10.1016/j.paid.2012.02.006
- Salovey, P.,& Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition, and Personality*, 9(3), 185–211. https://doi.org/10.2190/DUGG-P24E-52WK-6CDG
- Schneier, F. R., Johnson, J., Hornig, C. D., Liebowitz, M. R., & Weissman, M. M. (1992). Social phobia: Comorbidity and morbidity in an epidemiologic sample. *Archives of General Psychiatry*, 49(4), 282–288. https://doi.org/10.1001/archpsyc.1992.01820040034004
- Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, 25(2), 167–177. https://doi.org/10.1016/S0191-8869(98)00001-4
- Sears, S.,& Kraus, S. (2009). I think therefore i om: Cognitive distortions and coping style as mediators for the effects of mindfulness meditation on anxiety, positive and negative affect, and hope. *Journal of Clinical Psychology*, 65, 561–573. https://doi.org/10.1002/jclp.20543
- Steinmayr, R., Crede, J., McElvany, N., & Wirthwein, L. (2016). Subjective well-being, test anxiety, academic achievement: Testing for reciprocal effects. *Frontiers in Psychology*, 6, 1994. https://doi.org/10.3389/fpsyg.2015.01994
- Summerfeldt, L. J., Kloosterman, P. H., Antony, M. M., & Parker, J. D. (2006). Social anxiety, emotional intelligence, and interpersonal adjustment. *Journal of Psychopathology and Behavioral Assessment*, 28(1), 57–68. https://doi.org/10.1007/s10862-006-4542-1
- Tabachnick, B. G., & Fidell, L. S. (2014). Using multivariate statistics. Pearson.
- Tatar, A., Tok, S., Tekin Bender, M.,& Saltukoğlu, G. (2017). Asıl form Schutte Duygusal Zekâ Testinin Türkçe'ye çevirisi ve psikometrik özelliklerinin incelenmesi[Translation of original form of Schutte Emotional Intelligence Test into Turkish and examination of its psychometric Properties]. *Anadolu Psikiyatri Dergisi*, 18(2), 139–146. https://doi.org/10.5455/apd.221802
- Tezelli, S.,& Dimaç, B. (2021). Öğretmen adaylarında duygusal zekâ, sosyal kaygı ve öznel iyi oluş arasındaki yordayıcı ilişki [The corrector relations between emotional intelligence, social struggle and a good conception in teacher candidates]. *Necmettin Erbakan Üniversitesi Ereğli Eğitim Fakültesi Dergisi*, 3(1), 51–60. https://doi.org/10.51119/ereegf.2021.12
- Tiba, A. (2010). A grounded cognition perspective on irrational beliefs in rational emotive behavior therapy. *Journal of Cognitive and Behavioral Psychotherapies*, 10(1), 87–99.
- Türkçapar, H. (2011). Bilişsel terapi[Cognitive therapy]. Hyb.

- Ulusoy, M., Sahin, N. H., & Erkmen, H. (1998). Turkish version of the Beck Anxiety Inventory: Psychometric properties. *Journal of Cognitive Psychotherapy* 12(2), 163–172.
- Ural, A. (2001). Yöneticilerde duygusal zekanın üç boyutu [Three dimensions of emotional intelligence in managers]. *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 3(2), 209–219.
- Vitasari, P., Wahab, M. N. A., Othman, A., Herawan, T., & Sinnadurai, S. K. (2010). The relationship between study anxiety and academic performance among engineering students. *Procedia-Social and Behavioral Sciences*, *8*, 490–497. https://doi.org/10.1016/j.sbspro.2010.12.067
- Weems, C. F., Berman, S. L., Silverman, W. K., & Saavedra, L. M. (2001). Cognitive errors in youth with anxiety disorders: The linkages between negative cognitive errors and anxious symptoms. *Cognitive Therapy and Research*, 25, 559–575. https://doi.org/10.1023/A:1005505531527
- Wells, A. (2006). Cognitive therapy case formulation in anxiety disorders. In N. Tarrier (Ed.), *Case formulation in cognitive behaviour therapy: The treatment of challenging and complex cases*. Routledge.
- Wilson, C. J., Bushnell, J. A., Rickwood, D. J., Caputi, P., & Thomas, S. J. (2011). The role of problem orientation and cognitive distortions in depression and anxiety interventions for young adults. *Advances in Mental Health*, 10(1), 52–61. https://doi.org/10.5172/jamh.2011.10.1.52
- Wright, J.H., Basco M.R. &Thanse, M.E. (2006). *Learning cognitive-behavior therapy, an illustrated guide*. London: American Psychiatric Publishing, Inc
- Zeidner, M., Matthews, G., & Roberts, R. D. (2004). Emotional intelligence in the workplace: A critical review. *Applied Psychology*, *53*(3), 371–399. https://doi.org/10.1111/j.1464-0597.2004.00176.x