

Araştırma Makalesi

The Mediator Role of Empathy and Emotional Intelligence in the Relationship between Alexithymia and Emotional Expression Styles

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Makale Bilgisi	Abstract
<i>Keywords:</i> alexithymia, emotion expression styles, emotional intelligence, empathy	Although there are studies on the effect of alexithymia on expressed emotion, emotion expression in people with alexithymia was not specifically examined. This study aimed to investigate the relationship between alexithymia and emotional expression styles and whether emotional intelligence and empathy mediate this relationship. A total of 254 teacher candidates were evaluated using the Toronto Alexithymia Scale, Empathy Quotient Scale, Trait Emotional Intelligence Questionnaire, and Emotional Expression Styles Inventory. We performed the analyses using structural equation models. Our results revealed that alexithymia indirectly affected the expression style of happiness and sadness emotions negatively and emotional intelligence and empathy played a mediator role in this effect of alexithymia. Also, an indirect positive relationship was identified between alexithymia and anger expression style, and it was found that this relationship was mediated by emotional intelligence. Accordingly, emotional expression styles were also related to other variables. The present study also determined that alexithymia level was significantly and negatively correlated with emotional intelligence and empathy levels. This is the first study to reveal that alexithymia is related to emotional expression styles and that emotional intelligence and empathy also have mediator roles in emotional expression styles. expression styles were also related to other variables.
Anahtar Kelimeler:	Öz Aleksitiminin duygu ifade etme üzerindeki etkisine yönelik çalışmalar olmasına rağmen, aleksitimisi olan bireylerde duygu ifade biçimleri özel olarak incelenmemiştir. Bu çalışmanın amacı, aleksitimi
aleksitimi,	ile duygu ifade biçimleri arasındaki ilişkiyi ve duygusal zeka ile empatinin bu ilişkiye aracılık edip etmediğini incelemektir. Toronto Aleksitimi Ölçeği, Empati Bölüm Ölçeği, Özellikli Duygusal Zeka

aleksitimi, duygu ifade tarzları, duygusal zeka, empati Aleksitiminin duygu ifade etme uzerindeki etkisine yonenk çanşmalar olmasına ragmen, aleksitimisi olan bireylerde duygu ifade biçimleri özel olarak incelenmeniştir. Bu çalışmanın amacı, aleksitimi ile duygu ifade biçimleri arasındaki ilişkiyi ve duygusal zeka ile empatinin bu ilişkiye aracılık edip etmediğini incelemektir. Toronto Aleksitimi Ölçeği, Empati Bölüm Ölçeği, Özellikli Duygusal Zeka Ölçeği ve Duygusal İfade Tarzları Envanteri kullanılarak toplam 254 öğretmen adayı değerlendirilmiştir. Analizler, yapısal eşitlik modelleri kullanılarak toplam 254 öğretmen adayı, aleksitiminin mutluluk ve üzüntü duygularının ifade biçimini dolaylı olarak olumsuz etkilediğini ve aleksitiminin bu etkisinde duygusal zeka ve empatinin aracı rol oynadığını ortaya koymuştur. Ayrıca aleksitimi ile öfke ifade tarzı arasında dolaylı pozitif bir ilişki tespit edilmiş ve bu ilişkiye duygusal zekanın aracılık ettiği bulunmuştur. Buna göre duygu ifade biçimleri, diğer değişkenlerle de ilişkilidir. Bu çalışmada ayrıca aleksitimi düzeyi ile duygusal zeka düzeyi ve empati düzeyi arasında anlamlı bir negatifi ilişki olduğu saptanmıştır. Bu çalışma, aleksitiminin duygu ifade tarzları ile ilişkili olduğu ve duygusal zeka ve empatinin de duygusal ifade tarzlarında aracı rolü olduğunu ortaya koyan ilk çalışmadır.

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Introduction

Individuals experience many emotions such as anger, sadness, and happiness in their daily lives, and they exhibit certain behaviors that reflect and address those emotions. These behavioral reactions such as smiling, frowning, getting angry, and crying are the expressions and displays of emotion and they are conceptualized as "expressed emotion" (Allan et al., 2021; Araz & Erkus, 2014). Expressed Emotion can vary from person to person and from culture to culture and is conveyed either spontaneously or intentionally through verbal and/or non-verbal means (Allan et al., 2021; Araz & Erkus, 2014; Cordaro et al., 2018). The concept of expressed emotion includes being critical, taking a hostile attitude, being overly interested, being intrusive, establishing closeness, and displaying positive comments (Allan et al., 2021; Cameron & Overall, 2018). Emotional expression styles, on the other hand, are verbal and non-verbal ways of displaying the emotions experienced by a person toward an individual who makes them experience that emotion (Araz & Erkus, 2014).

To evaluate emotional expression styles, it has been examined how happiness, sadness, and anger are expressed in general. Among these, self-oriented expression and other-oriented expression styles related to the happiness emotion were defined. Expression styles of sadness usually involve responses on the face, aggressive expression, verbal expression, hiding, and postponing. On the other hand, the expression styles of anger were called aggressive expression, reflection on the face, retaliation, calm expression, verbal expression, and postponing (Araz & Erkus, 2014). Expression of emotions and expression styles are extremely important in terms of maintaining psychological well-being and healthy interpersonal communication and interaction, and many concepts in the field of mental health are associated with the subject (Allan et al., 2021; Araz & Erkus, 2014; Cameron & Overall, 2018; Cordaro et al., 2018). Examples of these related concepts include alexithymia, emotional intelligence, and empathy.

Alexithymia is defined as no words for mood or muteness toward emotions. The fundamental features of alexithymia are decreased emotional awareness and difficulty, or limitation in recognizing and verbalizing emotions. Individuals with alexithymia are not able to identify and distinguish what their emotions make them feel and cannot express their emotions by putting them into words (Da Silva et al., 2017; Lane et al., 2015; Lyvers et al., 2017). In the literature, several studies have pointed out that individuals who cannot verbally express their emotions and emotional conflicts tend to physically reflect their negative emotions such as anger and rage under stress (Hemming et al., 2019; Korkmaz et al., 2020; Panayiotou, 2018; Sifneos, 1996).

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Emotional intelligence, which is another concept associated with expressed emotion, refers to being able to understand and be aware of one's own and others' emotions, controlling one's anger, acting rationally, remaining optimistic and staying calm in the face of problems, and having emotional maturity (Lane, 2019). A number of positive outcomes including subjective well-being, positive emotional state, positive and satisfying relationships, and low clinical symptomatology have been associated with higher emotional intelligence levels. Thus, emotional intelligence is related to better psychological functioning, improved well-being, mental health, and social competence (Antoñanzas, 2017; Lane, 2019; Sanchez-Alvarez et al., 2016). Empathy, an important parameter of emotional intelligence, is an essential concept in communication and comes from the term "feeling inside". Empathy and empathic approach are defined as efforts to make sense of what is said by putting oneself in the place of the other person, to catch and feel the things that the other person feels and thinks but cannot say, and to understand the conditions that the other person experiences (Riess, 2017). Empathy is an extremely functional and necessary skill in observing and understanding others, establishing loving relationships, and maintaining psychological health (Fernández-Abascal & Martín-Díaz, 2019). Existing studies have shown that individuals with enhanced emotional intelligence adopt a more empathetic approach to understanding the emotions and thoughts of others (Di Lorenzo et al., 2019; Gómez-Leal et al., 2021). By contrast, individuals with dominant alexithymia characteristics show deficits and difficulties in empathy due to their inability to understand, identify and express emotions (Di Lorenzo et al., 2019; Valdespino et al., 2017).

Taken together, it has been revealed by several research that alexithymia, empathy, and emotional intelligence are some of the factors that determine the interpersonal relationships and quality of communication (Di Lorenzo et al., 2019). However, to our knowledge, there exist no studies conducted in both clinical and non-clinical settings on whether these factors have an effect on emotional expression styles, another concept described above and playing an important role in the process of interpersonal communication and interaction. On the other hand, alexithymia, empathy and emotional intelligence are considered to be important constructs in understanding the underlying causes of psychiatric disorders such as psychosomatic diseases, substance addictions, post-traumatic stress disorder, depression and anxiety disorders, and these concepts are thought to have mediating roles in the emergence of these disorders (Antoñanzas, 2017; Evren et al., 2015; Hemming et al., 2019; Hesse & Floyd, 2008; Korkmaz et al., 2020; Panayiotou, 2018; Sifneos, 1996). Therefore, it can be inferred that these interrelated concepts may also affect expressed emotion and emotional expression styles. Skills such as recognizing and expressing emotions and making them a part of personality are realized in early childhood. Accordingly, this study aimed to examine the relationship between alexithymia and emotional expression styles, and whether emotional intelligence and empathy mediate this relationship.

Method

Participants

The sample consisted of 254 teacher candidates studying at Sivas Cumhuriyet University, Faculty of Education, and Department of Preschool Education. The structured snowball sampling method was used. Since the sample of the research was formed by Sivas Cumhuriyet University teacher candidates, the study was carried out with a sample of 254 people. The participants' ages ranged from 18 to 26, and 16.5% (N=42) were male, and 83.5% (N=212) were female. The frequency and percentage values of the sample's sociodemographic data are presented in Table 1.

Table 1.

Demographic data of the participants

Variable	n	%
Gender		
Female	212	83.5
Male		
Grade		
1st grade	56	22.0
2nd grade	52	20.5
3rd grade	60	23.6
4th grade	86	33.9
Place of longest residence		
Provincial center	132	52.0
District	64	25.2
Village/town	58	22.8
People lived with		
Family	78	30.7
Alone	12	4.7
Dormitory	149	58.7
Friend/relative	15	5.9
Family structure		
Nuclear	200	78.7
Extended	44	17.4
Single parent	10	3.9
Family income		
Income less than expenses	108	42.5
Income equal to expenses	122	48.1
Income more than expenses	24	9.4

Measures

Toronto Alexithymia Scale (TAS-20). The scale was originally developed by Bagby et al. (1994), and Güleç et al. (2009) performed the validity and reliability study of the Turkish version. The TAS-20 consists of 20 five-point Likert-type items (*1=Never, 5=Always*). The score to be obtained from the scale ranges from 20 to 100, and higher scores indicate more alexithymia characteristics. The TAS-20 has three subscales that are "difficulty identifying feelings", "difficulty describing feelings", and "externally oriented thinking". Cronbach's alpha value of the overall scale was .78, and Cronbach's alpha values of the subscales were .80, .57, and .63, respectively. The results of confirmatory factor analysis showed that alexithymia provides the presence of three factors. The internal consistency coefficients determined in this study were.82, .70 and .16. The internal consistency coefficient of the total of the scale was .77.

Empathy Quotient (EQ) Scale. The was originally developed by Lawrence et al. (2004) to measure empathy levels and the Turkish adaptation was carried out by Kaya and Çolakoğlu (2015). The scale consists of three subscales, that are conceptualized as "social skills", "emotional response", and "cognitive empathy". There are 13 five-point Likert-type items on the scale (*1=Strongly Disagree, 5=Strongly Agree*). Higher scores indicate greater empathy levels. The reliability coefficients for the overall scale and the three subscales are .86, .61, .75, and .74, respectively. The total Cronbach's alpha reliability coefficient of the EQ, which was adapted into Turkish, was calculated as .86. The internal consistency coefficients in the current study were .84, .56, .71 and .77. The internal consistency coefficient of the total of the scale was .81.

Trait Emotional Intelligence Questionnaire-Short Form (TEIQ-SF). It was developed by Petrides and Furnham (2000), and its adaptation into Turkish, reliability and validity studies were carried out by Deniz et al. (2013). The scale consists of 20 seven-point Likert-type items (*1=Strongly Disagree*, *7=Strongly Agree*). The scale consists of four subscales that are "well-being", "self-control", "emotionality", and "sociability". Total emotional intelligence is calculated by summing certain items in the scale (i.e., *1*, *9*, *12*, *20*) together with the scores obtained in the other four subscales. Higher scores indicate greater emotional intelligence competencies. Cronbach's alpha reliability coefficient of the scale was determined as .72 for the Well-Being factor, .70 for Self-control, .66 for Emotionality, .70 for Sociability, and .81 for the overall scale (Deniz et al., 2013). The internal consistency coefficient of the total of the scale was .79.

Emotional Expression Styles Inventory (EESI). The Emotional Expression Styles Inventory (EESI) is a self-report inventory consisting of 50 items and three different

scales were developed by Araz & Erkuş (2014). The EESI includes "Happiness Expression Style Scale", "Sadness Expression Style Scale", and "Anger Expression Style Scale". The scale items are answered with a four-point rating (1=Never, 4=Always). Each scale consists of subscales that show different expression styles of the respective emotion. An increase in the total score of each subscale indicates an increase in the relevant expression style. The Happiness Expression Style Scale consists of two subscales that are conceptualized as "Self-Oriented Expression" and "Other-Oriented Expression". In the original scale development study, Cronbach's alpha value was .81 for the Other-Oriented Expression subscale and .74 for the Self-Oriented Expression subscale. In our study, Cronbach's alpha internal consistency coefficient was found to be .80 for the Other-Oriented Expression subscale and .71 for the Self-Oriented Expression subscale. The Sadness Expression Style Scale, on the other hand, includes 5 subscales that are "Reflection on the face", "Aggressive Expression", "Verbal Expression", "Hiding", and "Postponing". In the original scale development study, Cronbach's alpha internal consistency coefficients for the subscales of the Sadness Expression Style Scale were .80, .75, .73, .63, and .62, respectively. In our study, Cronbach's alpha value was .80 for the Other-Oriented Expression subscale and .71 for the Self-Oriented Expression subscale. The Anger Expression Style Scale includes the subscales of "Aggressive Expression", "Reflection on the Face", "Retaliation", "Calm Expression", "Verbal Expression", and "Postponing". In the original study, Cronbach's alpha internal consistency coefficients of the subscales were .79, .75, .77, .65, .62, .74, and .59, respectively. In our study, Cronbach's alpha values were .80, .65, .71, .55, .51, .72 and .55, respectively.

Statistical Analysis

SPSS software (IBM SPSS, Version 23.0, IBM Corporation, Armonk, NY, USA) was used for the statistical analyses of the data. The normality assumption was tested by the one-sample Kolmogorov-Smirnov test. The numerical and categorical data were given as mean \pm standard deviation (SD), number (n), median (min-max), and percentage (%) as appropriate. During statistical analyses, the chi-square test, independent t-test, and one-way ANOVA or χ 2-test (chi-square test) were performed. Statistical significance was considered as p < .05. The relationships between the scores of the scales used in the study were investigated by Pearson's correlation analysis. Furthermore, structural equation modeling was used to model causal and predictive relationships among the variables and to test relationship sequences. Statistical significance was considered as p < .05.

Results

The relationships between EQ, TEIQ-SF, TAS-20, and subscale total scores and EESI and subscale total scores are given in Table 2. When the table is examined in general, the significant correlation coefficients showed the way for the establishment of the structural equation model. Then, structural equation modeling was used to model causal relationships between the variables and to test the relationship sequences.

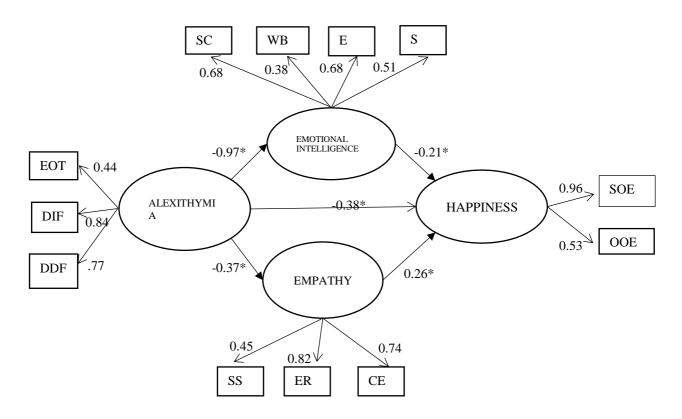
Table 2.

	0			-												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SS	.20**	.19**	.22***	09	12	.06	04	01	08	08	06	19**	04	01	02	13*
ER	.26***	.12	.21**	.04	12	.26***	13*	.00	.02	08	.07	07	16*	.27***	.00	.02
CE	.21**	.14*	.20**	03	.04	.26***	13*	.10	.11	.02	.06	03	05	.27***	.12	.11
EQ	.28***	.19**	.26***	03	07	.26***	13*	.05	.04	05	.04	11	10	.24***	.06	.01
SC	.07	.02	.05	09	17**	.12	08	09	11	20**	20**	22***	.00	.16**	12^{*}	 20 ^{**}
WB	.07	.08	.08	.,09	17**	.20**	02	.00	04	20**	2 1 ^{**}	22***	.10	.21**	.03	15*
Е	.24***	.18**	.24***	03	17**	.25***	23**	12	11	 13 [*]	16**	09	 15 [*]	.17**	15*	17**
S	.21**	.18**	.22***	.08	.01	$.31^{***}$	38**	12	01	.02	.04	.03	35***	.26***	19**	.,03
TEIQ-SF	.23***	.17**	.23***	06	16*	.32***	28**	09	09	17**	18**	19**	13 *	.31***	16*	18**
DDF	16*	03	10	$.15^{*}$.23***	1 4 [*]	.24***	.17**	.24***	.27***	.25***	.24***	.11	15*	.20**	.30***
DIF	21**	12	19**	02	.09	25***	.26**	$.15^{*}$.08	.10	.10	.11	.18**	15*	$.17^{**}$.16*
EOT	22***	10	18**	10	$.15^*$	25***	.07	.08	04	.09	00	.07	.10	28***	.05	00
TAS	- 94***	- 00	- 18**	04	2 2***	- 95***	25***	18**	15*	00 ***	17**	20**	16**	- 94***	10**	00 ***

Examining the Relationships between Scale and Total Scores

-.09 -.18** .04 .22* -.25*** $.25^{***}$.18** $.15^{*}$.22** .20** TAS .17 .16* -.24** .19* -.24* *p<0,05; **p<0,01; ***p<0,001, SS= Social Skills, ER= Emotional Response, CE= Cognitive Empathy, EQ= Empathy Quotient Scale, SC=. Self-control, WB= Well-being, E = Emotionality, S= Sociability, TEIQ-SF = Trait Emotional Intelligence Questionnaire-Short Form, DDF = Difficulty Describing Feelings, DIF = Difficulty Identifying Feeling, EOT = Externally-Oriented Thinking, TAS= Toronto Alexithymia Scale, 1= Self-Oriented Expression, 2= Other-Oriented Expression, 3= Happiness Expression Style Scale, 4= Reflection on the face, 5= Aggressive Expression, 6= Verbal Expression, 7= Hiding, 8= Postponing, 9= The Sadness Expression Style Scale, 10= Aggressive Expression, 11= Reflection on the face, 12= Retaliation, 13= Calm Expression, 14= Verbal Expression, 15= Postponing, 16= The Anger Expression Style Scale

In the first model, the structural equation model established for the alexithymia score to predict the happiness score over the emotional intelligence and empathy score showed an acceptable fit (*CMIN/DF=2.99*; *GFI=0.92*; *AGFI=0.90*; *CFI=0.90*; *RMR=0.90*; *RMSEA=0.09*). While a 1-unit increase in the alexithymia score decreased the emotional intelligence score by 0.97 units (%95 CI: -0.885 / -0.619), it decreased the empathy score by 0.37 units (%95 CI: -0.282 / -0.083). A 1-unit increase in the emotional intelligence score decreased the happiness score by 0.21 units (%95 CI: 4.026 / 0.643), while a 1-unit increase in the empathy score increased it by 0.26 units (%95 CI: 0.036 / 0.453). The indirect effect of the alexithymia score on the happiness score was found to be 0.10 (Figure 1).

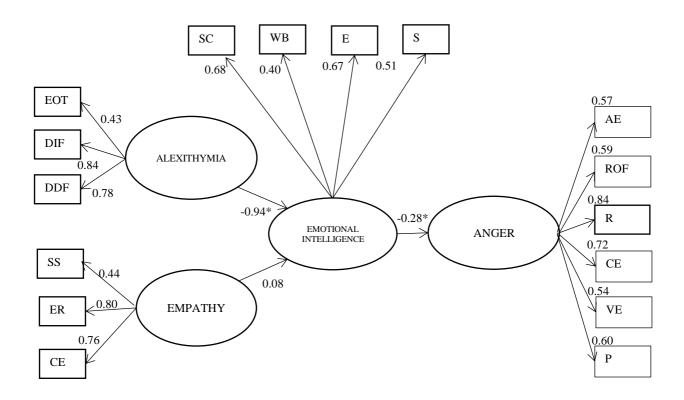


SS= Social Skills, ER= Emotional Response, CE= Cognitive Empathy, SC= Self-control, WB= Well-being, E = Emotionality, S= Sociability, DDF = Difficulty Describing Feelings, DIF= Difficulty Identifying Feeling, EOT= Externally-Oriented Thinking, SOE = Self-Oriented Expression, OOE = Other-Oriented Expression

Figure 1.

The Mediator Role of Emotional Intelligence and Empathy in the Effect of Alexithymia on the Happiness Score

The second structural equation model, which was established for the alexithymia score to predict the sadness score over the emotional intelligence and empathy scores, also showed a good fit (*CMIN/DF=3.72; GFI=0.91; AGFI=0.90; CFI=0.91; RMR=0.95; RMSEA=0.10*). The calculated *RMSEA* is seen as an improvable value. Accordingly, a 1-unit increase in the alexithymia score decreased the emotional intelligence score by 0.98 units (%95 *CI: -0.868 / -0.614*), while it decreased the empathy score by 0.39 units (%95 *CI: -0.290 / -0.094*). A 1-unit increase in the emotional intelligence score increased the sadness score by 0.88 units (%95 *CI: 0.032 / 0.522*), while a 1-unit increase in the empathy score increased it by 0.22 units (%95 *CI: 0.028 / 0.204*). The indirect effect of the alexithymia score on the sadness score was found to be -0.94 (Figure 2).

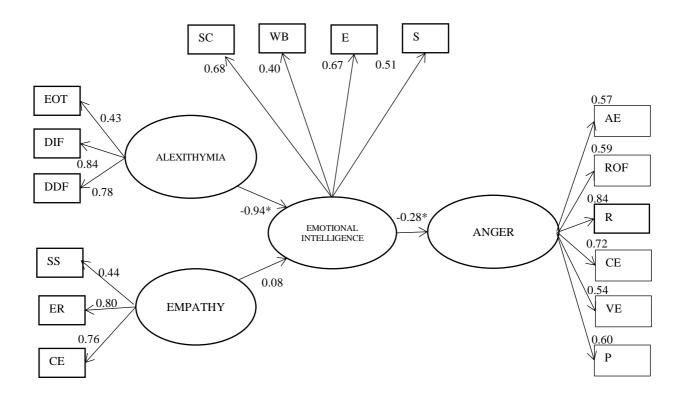


SS= Social Skills, ER= Emotional Response, CE= Cognitive Empathy, SC= Self-control, WB= Well-being, E = Emotionality, S= Sociability, DDF = Difficulty Describing Feelings, DIF= Difficulty Identifying Feeling, EOT= Externally-Oriented Thinking, ROF = Reflection on the face, AE = Aggressive Expression, VE = Verbal Expression, H = Hiding, P = Postponing.

Figure 2.

The Mediator Role of Emotional Intelligence and Empathy in the Effect of Alexithymia on the Sadness Score

The third structural equation model established for the alexithymia and empathy scores to predict the anger score over the emotional intelligence score also showed a good fit (*CMIN/DF=4.34; GFI=0.91; AGFI=0.90; CFI=0.90; RMR=0.95; RMSEA=0.10*). The calculated *RMSEA* is seen as an improvable value. Accordingly, a 1-unit increase in the alexithymia score decreased the emotional intelligence score by 0.94 (%95 *CI: -0.887 / - 0.630*), while a 1-unit increase in the empathy score increased it by 0.08 units (%95 *CI: -0.167 / 0.360*). A 1-unit increase in the emotional intelligence score decreased the *anger* score by 0.28 units (%95 *CI: -0.225 / -0.021*). The indirect effect of the alexithymia score on the anger score was found to be 0.38, while the indirect effect of the empathy score was 0.02 (Figure 3).



SS= Social Skills, ER= Emotional Response, CE= Cognitive Empathy, SC= Self-control, WB= Well-being, E = Emotionality, S= Sociability, DDF = Difficulty Describing Feelings, DIF= Difficulty Identifying Feeling, EOT= Externally-Oriented Thinking, AE = Aggressive Expression, ROF = Reflection on the face, R = Retaliation, CE = Calm Expression, VE = Verbal Expression, P = Postponing

Figure 3.

The Mediator Role of Emotional Intelligence in the Effect of the Alexithymia and Empathy Score on the Anger Score

Discussion

In the current study, the relationship between alexithymia and emotional expression styles, and the mediator roles of emotional intelligence and empathy in this relationship were examined. Our results revealed that alexithymia indirectly affected the expression style of happiness and sadness negatively, and emotional intelligence and empathy played a mediator role in this effect of alexithymia. Upon examining the relationship between alexithymia and the expression style of anger emotion, an indirect positive relationship was identified between alexithymia and anger expression style, and it was found that this relationship was mediated by emotional intelligence. Our study also determined that alexithymia levels had significant negative correlations with both emotional intelligence and empathy levels.

Existing studies sampling individuals with alexithymia revealed a correlation between the inability to express positive and negative emotions and different psychological problems. For example, it was revealed that individuals with higher levels of alexithymia had lower emotional intelligence, emotional self-awareness, and empathy levels while they experienced loneliness, and interpersonal problems, and adopted more maladaptive coping styles (Di Lorenzo et al., 2019; Hemming et al., 2019; Grynberg et al., 2018; Karaismailoğlu et al., 2021; Schuetz & Multon, 2017; Temiz, 2018; Valdespino et al., 2017). Our study found that alexithymia had a negative and significant relationship with empathy and emotional intelligence level, in line with the literature. Our finding indicating an inverse relationship between alexithymia and emotional intelligence l can be explained by the fact that alexithymic individuals have lower internal awareness of emotions, in other words, they have low emotional self-awareness because they cannot recognize and identify emotions (Di Lorenzo et al., 2019). As for the inverse relationship between alexithymia and empathy, an individual who is unaware of their emotions cannot be expected to recognize and identify with the emotions of others. Thus, it is an expected result that alexithymic individuals have difficulties in empathizing, in other words, understanding and sharing the emotions of other people around them. In support of this, existing findings showed that individuals with alexithymia treat others in an unaffectionate, avoidant, uninterested-indifferent, and non-empathetic manner. They are also described as cold and distanced in close relationships (Grynberg et al., 2018; Hesse & Floyd, 2008; Schuetz & Multon, 2017). It was even reported that they avoided close relationships at all and tended to distance themselves from people (Haviland & Reise, 1996). Moreover, it was emphasized that alexithymic individuals, who are generally likened to robots that continue their lives mechanically, maintain their communication in a way that is far from natural in interpersonal relations and without revealing their personalities (Temiz, 2018). It has been observed that the inability of these individuals to fully experience their emotions and the limited emotional interaction with their environment significantly affected their communication skills, and there was a negative relationship between alexithymia and interpersonal communication skills (Karaismailoğlu et al., 2021; Temiz, 2018).

Although there exist studies on the effect of alexithymia on expressed emotion in the literature, emotional expression styles in individuals with alexithymia were not specifically examined. Regarding expressed emotion, studies have revealed that alexithymia is a deficiency in processing, regulating, and expressing emotions, and because of the inability to verbalize the internal distress experienced, these emotions are expressed in the form of bodily complaints (Korkmaz et al., 2020; Panayiotou, 2018; Sifneos, 1996; Şener & Köseoğlu, 2020). In this case, the psychological state is expressed in an alternative way through somatization, in

other words, the body conveys the messages that emotions cannot convey. On the other hand, considering the low level of emotional awareness in alexithymia and the difficulty recognizing and describing their own and others' emotions, it is highly likely that the alexithymia level also affects their emotional expression styles because individuals' unawareness of the specific emotion they feel might also prevent expressing those emotions in functional ways.

It is stated that the expression of emotions and expression styles can be realized through verbal and non-verbal ways. Verbal expression confirms the conveyed message, while non-verbal expression both confirms the conveyed message and strongly influences communication patterns (Allan et al., 2021; Araz & Erkus, 2014; Cameron & Overall, 2018; Cordaro et al., 2018). Amongst others, happiness is the most desired emotion and is felt in response to a pleasing situation or consequence. Sadness appears as a negative emotion felt due to not realizing something desired, being hurt, loss of something valuable, and low probability of compensation for the loss, or in the face of undesirable events. Anger, on the other hand, is a negative emotion that can be experienced when a person is hurt when his/her rights are violated, when he/she experiences intense frustration, and when his/her needs or wishes are not met properly. All these emotions can be expressed verbally as well as non-verbally with different styles (Araz & Erkus, 2014; Knobloch & Metts, 2013).

In the current study, the dynamic aspects of the relationships between alexithymia, emotional intelligence, empathy, and happiness, sadness, and anger emotion expressions were examined in the established structural equation models. The results indicated that the expression styles of happiness and sadness are adversely affected by alexithymia, but alexithymia increases the expression style of anger emotion. In other words, individuals with higher alexithymia levels, who do not know exactly what they feel and experience difficulty finding the appropriate words for their emotions, defining, and expressing them, have a decreased expression of their happiness and sadness, but an increased expression of their anger emotion. In general, there is a common view that during an emotional speech, alexithymic individuals tend to show fewer facial expressions, and the emotional tone of their speech is not compatible with the value of speech (Da Silva et al., 2017; Panayiotou & Constantinou, 2017; Panayiotou, 2018; Wagner & Lee, 2008). However, it is not clear whether there is a deficiency in the expression of all emotions in general or especially in the expression of negative emotions in alexithymia. While some studies found a decrease in the expression of all emotions in alexithymia (Paez et al., 1999; Panayiotou & Constantinou, 2017; Wagner & Lee, 2008), other studies revealed a decrease in the verbal expression of negative emotions (Solano et al., 2003). The fact that the expression styles of happiness and sadness as positive and negative emotions were adversely affected by alexithymia in our study supports the accumulating evidence in the literature. However, it was observed that most of the studies in the literature mainly focused on negative emotions in alexithymia. Therefore, the number of studies examining the expression of positive emotions in alexithymia is extremely limited and very outdated. Some of these studies focusing on the expression of positive emotions did not find a significant difference between individuals with higher and lower alexithymia levels (Paez et al., 1999; Smyth et al., 2002). Wagner and Lee's study (2008) found a significant inverse relationship between the verbal expression of positive emotions and alexithymia in the explanation of positive emotional experiences, and as the individual's alexithymia level increased, it was observed that they spoke less about positive emotions during the explanation Again, the facial expression of positive emotion in the positive talk, in other words, non-verbal expression of positive emotions, was found to be significantly and inversely proportional to alexithymia. It has been noted that the more alexithymic the individual was, the fewer positive emotions he/she displayed on his/her face while describing his/her experiences (Paez et al., 1999). Furthermore, in somatization studies, a decrease in the expression of positive emotions, which is thought to be associated with depressive complaints, was found to be associated with alexithymia (Motan & Gençöz, 2007). Moreover, the results of the studies on negative expressed emotion in alexithymic individuals are also inconsistent. Some studies reported lower negative expressed emotion in individuals with alexithymia, while others reported an increase or no difference at all. For example, Paez et al. (1999) did not find a significant relationship between the use of positive or negative emotional words in participants' emotional attempts and alexithymia. Another study evaluating only the expression of negative emotions through a therapeutic interview with non-clinical participants demonstrated an inverse relationship between alexithymia and the nonverbal expression of negative emotions (Troisi et al., 1996). Supporting this, psychosomatic patients with high alexithymia levels showed less aggressive behavior during therapeutic interactions than patients with lower alexithymia levels (Rasting et al., 2005). Our study, on the other hand, revealed that alexithymia increased the anger expression style and individuals with higher alexithymia scores tended to use anger expression styles more. Based on our findings, it can be concluded that the skills and techniques of individuals with high alexithymia levels to cope with their anger healthily and to express it in appropriate ways may not be sufficiently developed or that they may regard it as an easier and correct way to experience a sense of relief by expressing their anger instead of trying to suppress and keep it inside. Our finding, indicating that the anger expression level increases as the alexithymia level increases is consistent with the findings of many other studies. Previous studies have found that alexithymia is positively associated with trait anger, internalized, and externalized anger levels and expression styles, and the anger level increases

as the alexithymia level increases (Kahramanol & Dag, 2018; Korkmaz et al., 2020). It was found that alexithymic individuals experienced significantly more anger than controls but had difficulty expressing their anger verbally and showed more hostility and aggression (Evren et al., 2015; Kahramanol & Dag, 2018; Oktay & Batigun, 2014). In another study, individuals with high alexithymia levels exhibited more nonverbal anger when provoked than those with low alexithymia levels (Berenbaum & Irvin, 1996). Some studies revealed that alexithymic features themselves caused the development of anger, anger was observed together with depression and anxiety disorders, and these were often expressed with somatic complaints (Roberton et al., 2014; Velotti et al., 2016). Another reason why individuals with high alexithymia levels use their anger expression styles more frequently may be that they have difficulty understanding their circle and coping with problems due to their low emotional awareness level. It is known that alexithymic individuals lack creativity and developed empathy skills, and when they encounter a problem in their relationships, they are preoccupied with superficial causes rather than reaching the root of problems, and they seek shortcuts and concrete solutions (Epözdemir, 2012; Şener & Köseoğlu, 2020). The situation of making a judgment without examining problems in-depth, not being able to establish cause-effect relationships regarding the problems, and not adding their emotions to this process can inevitably increase the anger level. The results of these studies show us that alexithymic individuals have a negative style in interpersonal relationships, which is also similar to our findings.

Emotional intelligence is associated with the evaluation, regulation, management, and expression of emotions, communication skills, empathy, happiness, and optimism. It is known that people with high emotional intelligence can perceive and evaluate their emotions accurately and know when and how to express their emotions (Antoñanzas, 2017; Lane, 2019; Sanchez-Alvarez et al., 2016). Furthermore, as the emotional intelligence level increased, social skills and problem-solving skills increased, and aggressive behaviors decreased (Sarabia-Cobo et al., 2017; Sanchez-Alvarez et al., 2016). However, to our knowledge, no study has examined whether there is a relationship between emotional intelligence and emotion expression and emotion expression styles. It can be inferred that being aware of the emotions that make up emotional intelligence, being able to perceive emotions accurately, knowing when and how to express emotions, being able to express emotions easily, and being able to manage emotions can be considered as the main factors underlying expressed emotion. Therefore, emotional intelligence can affect emotional expression styles In addition, individuals with enhanced emotional intelligence are better able to identify their emotional experiences, control their emotions and better understand the feelings and thoughts of others. For these individuals, adopting an empathic approach may affect their emotional expression styles. However, considering that empathy is the process of understanding the emotions and thoughts of the other person correctly regarding a certain situation, feeling what he/she feels and conveying this situation to him/her, it is possible that empathy also affects emotional expression styles because owing to the empathy skill, the person understands the emotion of the other individual and makes him/her feel understood with emotional reactions and behaviors suitable for this individual and conditions (Fernández-Abascal & Martín-Díaz, 2019; Riess, 2017).

The strengths of this study are that the effect of alexithymia on emotional expression styles was examined by considering three emotional expression styles (happiness, sadness, and anger). Most of the studies in the literature examine the relationship between alexithymia and anger expression. Therefore, our findings provide data and a perspective for further studies on the relationship between alexithymia and expression of happiness and sadness. However, the fact that the sample was taken from students of only one faculty prevents the generalizability of our findings. In addition, the selection of the study from the faculty of a university, in a limited age range, and mostly from a female sample is among the limitations of the study.

Conclusion

Although previous studies investigated alexithymia and expressed emotion, the fact that the relationship between alexithymia and emotional expression styles was examined by considering all emotional expression styles such as happiness, sadness, and anger expression styles distinguishes this study from other studies. Furthermore, to our knowledge, this is the first study to reveal that emotional intelligence and empathy also have mediator roles in emotional expression styles. The results obtained from our study show that individuals with high alexithymia levels use their happiness and sadness expression styles less while expressing their emotions, but they use anger expression styles more. In conclusion, it is understood that alexithymia, emotional intelligence, and empathy affect emotional expression styles. It is thought that our results will contribute to practice and further studies. Its contribution to practice is that individuals who have problems expressing their happiness and sadness verbally or non-verbally but who mostly resort to anger expression styles should also be evaluated in terms of alexithymic characteristics.

Author contributions:

All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by [Yavuz Yımaz], [Erdi Bahadır], [Esra Gültürk] and [Mehmet Kanak]. The first draft of the manuscript was written by [Ayla Uzun Çiçek] and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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Aleksitimi ve Duygusal İfade Tarzları Arasındaki İlişkide Empati ve Duygusal Zekanın Aracı Rolü

Özet

Bireyler günlük yaşamda öfke, üzüntü, mutluluk gibi pek çok duygu yaşamakta; bu duygusal deneyimler sonrasında bazı davranışlar sergilemekte ve duygularını dışa yansıtmaktadır. Gülümseme, kaş çatma, öfkelenme ve ağlama gibi bu davranışsal tepkiler duygunun gösterimi ve sergilenişi olup "duygu dışavurum" kavramı ile ifade edilmektedir. Duygu dışavurum tarzları ise kişinin deneyimlediği duygularını kendisine o duyguyu yaşatan bireye karşı sözel ve sözel olmayan yollarla sergileme şeklidir. Aleksitimi duygular için söz yokluğu veya duygulara karşı dilsizlik olarak tanımlanır. Aleksitiminin temel özelliği duygusal farkındalıkta azalma, duyguları tanımada ve söze dökmede zorluk veya kısıtlılıktır. Duygu dışavurumu ile ilişkili görülen bir diğer kavram olan duygusal zekâ ise kişinin kendisinin ve başkalarının duygularını anlayabilme ve farkında olabilme, öfkesini ve eğilimlerini kontrol edebilme, mantıklı davranabilme, karşılaştığı sorunlar karşısında iyimser ve sakin kalabilme ve duvgusal olgunluk anlamını kapsamaktadır. Duvgusal zekanın önemli bir parametresi olan empati ise iletişimde önemli bir kavram olup "içinde hissetmek" teriminden gelir. Empati ve empatik yaklaşım kişinin kendisini karşısındaki kişinin yerine koyarak söylenenleri anlamlandırma, diğer kisinin hissettiği ve düsündüğü fakat sövlevemediği sevleri vakalama ve hissetme, içinde bulunduğu koşulları anlayabilme çabasıdır. İnsan yaşamında çok sık yer alan aleksitimi, empati ve duygusal zekanın bireylerin birbirleriyle olan ilişkilerini ve iletişimi belirleyen faktörler olduğu söylenebilir.

Bu çalışmanın amacı, aleksitimi ile duygu ifade biçimleri arasındaki ilişkiyi ve duygusal zekâ ile empatinin bu ilişkiye aracılık edip etmediğini incelemektir. Toronto Aleksitimi Ölçeği, Empati Bölüm Ölçeği, Özellikli Duygusal Zekâ Ölçeği ve Duygusal İfade Tarzları Envanteri kullanılarak 212'si kadın, 42'si erkek toplam 254 öğretmen adayı değerlendirilmiştir. Analizler yapısal eşitlik modelleri kullanarak gerçekleştirilmiştir.

Empati Düzeyi Belirleme Ölçeği, Duygusal Zekâ Özelliği Ölçeği ve Toronto Aleksitimi Ölçeği'nin toplam puanları arasındaki ilişkiler Pearson korelasyon analizi ile değerlendirilmiştir. Analizde empati düzeyi duygusal zekâ düzeyi ile anlamlı olarak pozitif korelasyon göstermiştir (rho = .33, p<.001). Öte yandan aleksitimi düzeyinin hem empati düzeyi ile ve hem de duygusal zekâ düzeyi ile anlamlı olarak negatif korelasyon gösterdiği saptanmıştır (p<0.001, rho=-0.22, and p<0.001, rho=-0.68). Daha sonra değişkenler arasındaki nedensel ilişkilerin modellenmesi ve ilişki dizilerinin test edilmesi için yapısal eşitlik modellemesi kullanılmıştır. İlk kurulan modelde aleksitimi puanının duygusal zekâ ve empati puanı üzerinde mutluluk puanını yordaması için kurulan yapısal eşitlik modeli kabul edilebilir uyum göstermektedir (*CMIN/DF=3,13; GFI=0,91; AGFI=0,88; CFI=0,88; RMR=0,92; RMSEA=0,08*). Aleksitimi puanının duygusal zekâ ve empati puanı üzerinde üzüntü puanını yordaması için kurulan ikinci yapısal eşitlik modeli de iyi uyum göstermektedir (*CMIN/DF=3,97; GFI=0,95; AGFI=0,92; CFI=0,95; RMR=0,99; RMSEA=0,10*). Aleksitimi ve empati puanlarının duygusal zekâ puanı üzerinden öfke puanını yordaması için kurulan üçüncü yapısal eşitlik modeli de iyi uyum göstermektedir (*CMIN/DF=3,46; GFI=0,95; AGFI=0,92; CFI=0,95; RMR=0,92; RMSEA=0,10*).

Daha önceki çalışmalarda aleksitimi ile duygu dışavurumu araştırılmış olsa da bu çalışmada mutluluk, üzüntü ve öfke dışavurum tarzları olarak tüm duygu dışavurum tarzlarını bir arada ele alarak aleksitimi ile duygu dışavurum tarzları arasındaki ilişkinin incelenmiş olması bu çalışmayı diğer çalışmalardan ayırmaktadır. Ayrıca çalışmamız bildiğimiz kadarıyla, duygusal zekâ ve empatinin de duygu dışavurum tarzları üzerinde aracı rollerinin olduğunu ortaya koyan ilk çalışmadır. Çalışmamızdan elde edilen sonuçlar aleksitimi düzeyi yüksek olan bireylerin duygularını ortaya koyarken mutluluk ve üzüntü duygu dışavurum tarzlarını daha az kullandıklarını ancak öfke duygu dışavurum tarzlarını daha fazla kullandıklarını göstermektedir. Sonuç olarak aleksitiminin, duygusal zekanın ve empatinin duyguların dışavurum tarzlarını etkilediği anlaşılmaktadır. Bu ilişkinin daha ayrıntılı incelenmesi için demografik değişkenler araştırmaya dahil edilerek farklı çalışma gruplarında ve farklı araştırma yöntemlerinde bulgularımız tekrarlanabilir.