Teacher Candidates' Cognitive Avoidance and Intolerance of Uncertainty Predicting Alexithymia

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Abstract

The aim of this research is to examine whether teacher candidates' cognitive avoidance and intolerance of uncertainty predict alexithymia. The study was designed as correlational design. 254 senior students in Faculty of Education who were selected by simple random sampling method participated in the study. 20-Item Toronto Alexithymia Scale (TAS-20), Cognitive Avoidance Scale, and Intolerance of Uncertainty Scale were used to collect data. Pearson product-moment correlation coefficient and multiple regression analysis were conducted to analyse data. According to results, intolerance of uncertainty and cognitive avoidance explain 20% of total variance for alexithymia.

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INTRODUCTION

In his book Metaphysics, Aristoteles (2017) states that: "All men by nature desire to know". In fact, this need to know is directly related to the desire to establish control over themselves, their surroundings, and experiences. Hence, they feel anxious when they cannot establish control over these, in other words, in cases of uncertainty. Today, not being appointed make teachers stress and causes them to feel uncertain about the future and thus, to experience cognitive avoidance. In this context, determining the intolerance of uncertainty levels of teacher candidates and accordingly, alexithymia levels, revealing the relationships between these concepts, and to propose solutions in accordance with the findings constitute the aim of this study.

Intolerance of Uncertainty

When the related literature is examined, two different statements can be observed about uncertainty. These are intolerance of ambiguity and intolerance of uncertainty (Dugas, Marchand, and Ladouceur, 2005). Intolerance of ambiguity is the evaluation of a situation or an incident as black or white by the individual (Grenier et al., 2005). Intolerance of uncertainty, on the other hand, is evaluated as a negative cognitive bias about the future in emotions and thoughts which negatively affects the perceptions and evaluations of individuals (Dugas et al., 2005) which is associated with anxiety disorders (Grenier, Barrette, and Ladouceur, 2005).

Intolerance of uncertainty was first defined as a concept that is associated with reacting cognitively, emotionally, and behaviorally against the uncertainty in daily life situations (Dugas, Buhr, and Ladouceur, 2004; Freeston, Rhéaume, Letarte, Dugas, and Ladouceur, 1994). At first, this concept was discussed within the context of anxiety and general anxiety disorder (Dugas, Gagnon, Ladouceur, and Freeston, 1998; Holaway, Heimberg, and Coles, 2006). In the recent studies, on the other hand, intolerance of uncertainty is discussed as a critical trans-diagnostic structure in terms of understanding neuroticism (Boswell, Thompson-Hollands, Farchione, and Barlow, 2013; Gentes & Ruscio, 2011).

The uncertainty negatively affects the information processing procedures (Craske et al., 2009). Koerner and Dugas (2008) discussed the intolerance of uncertainty as a personality trait. According to them, individuals with this personality trait possess cognitive disposition towards uncertainty and have negative thoughts and emotions in the case of uncertainty. In other words, they are inclined to be pessimists. This type of individuals focus more on their anxiety instead of making an effort to get rid of this uncertainty and do not focus on finding ways to come through from these situations (Dugas et al., 2004). Hence, there is a number of studies in the literature regarding the relationship between intolerance of ambiguity and psychological disorders. There are findings which indicate that intolerance of uncertainty is associated with obsessive-compulsive disorder (Steketee, Frost, and Cohen, 1998; Tolin, Abramowitz, Brigidi, and Foa, 2003), social anxiety and social fear (Boelen & Reijntjes, 2009; Carleton, Collimore, and Asmundson, 2010); depression (Berenbaum, Bredemeier, and Thompson, 2008; Miranda, Fontes, and Marroquin, 2008; Yook, Kim, Suh, and Lee, 2010); psychosomatic symptoms, general anxiety disorder, and depression (Dugas, Gosselin, and Ladouceur, 2001; Dugas et al., 2003; Ladouceur, Gosselin, and Dugas, 2000), panic disorder and agoraphobia (Buhr & Dugas, 2009; Carleton et al., 2014; McEvoy & Mahoney, 2011), eating disorders (Sternheim, Startup, and Schmidt, 2011); anxiety sensitivity (Fergus & Bardeen, 2013; Norr et al., 2013), sleep quality, insomnia (Lauriola et al., 2019), cyberchondria (Norr, Albanese, Oglesby, Allan, and Schmidt, 2015), psychological well-being (Geçgin & Sahranç, 2017), happiness (Sarıçam, 2014), anxiety, attachment, positive and negative emotion regulation, (Yüksel, 2014), positive and negative beliefs about anxiety (Karataş & Uzun, 2018) and alexithymia (Yıldız & Güllü, 2018). Individuals with high levels of intolerance of uncertainty avoid encountering uncertain situations as much as possible, they experience disorders in their emotional, behavioral, and cognitive functions when faced with uncertainty, and present cognitive bias in their decisions and evaluations (Buhr & Dugas, 2002; Dugas et al., 2005). Therefore, it can be possible that the individuals with high levels of intolerance of uncertainty have probably have cognitive avoidance as well.

Cognitive Avoidance

Cognitive avoidance which is the other independent variable of the study is defined as a method chosen for dealing with stressful incidents and relations (Doron, Thomas-Ollivier, Vachon, and Fortes-Bourbousson, 2013). Cognitive avoidance is a concept that includes mental strategies such as rumination and intentionally oppressing unsettling urges and thoughts. The avoidance is not only observed as cognitively but also observed as behaviorally (Moos & Schaffer, 1993). Behavioral avoidance is defined as becoming isolated and drawing away from avoiding stressful situations. Behavioral avoidance includes delaying decisions, self-isolation from people, not carrying out the assignments and responsibilities, and not seizing the opportunity (Barajas, Garra, and Ros, 2017). Cognitive avoidance, on the other hand, is believing and accepting that the problems will never be solved, and the conditions will never change instead of struggling with the experienced negativities. However, behavioral avoidance can be defined as inclining towards easy alternatives and simple solutions instead of confronting (Çakır, 2013).

In the related literature, cognitive avoidance was studied in relation to rumination, depressive rumination, and self-compassion (Esen, 2017; Neziroğlu, 2010), use of alcohol and substance (Ireland, McMahon, Malow, and Kouzekanani, 1994; Stewart, Zvolensky, and Eifert, 2002), eating attitudes (Çakır, 2013), self-stigma attitudes towards receiving psychological help (Eşkisu, Ağırkan, and Haspolat, 2018), depression and anxiety (Blalock & Joiner, 2000; DeGenova, Patton, Jurich, and MacDermid, 1994; Hayes, 2016).

Alexithymia

The concept of alexithymia which was first used by Sifneos (1972) to define a psychosomatic disorder is translated to Turkish as "absence of words for emotions" (Dereboy, 1990; Şaşıoğlu, Gülol, and Tosun, 2013). Sifneos (1972) states that alexithymic individuals experience difficulty in interpreting their emotions, keep distance with other people, and thus, experience difficulty in human relations. Taylor, Bagby, and Parker (1991; 1997) and Epözdemir (2012) state that alexithymic individuals tend to find superficial and temporary solutions to the problems they encounter due to their mechanic and pragmatic way of thinking instead of thinking thoroughly on the reasons of the problems. In the studies conducted after Sifneos, alexithymia is defined as lack of self-confidence, difficulty in developing empathy, experiencing difficulty in describing and expressing emotions, lack of dreaming, distinguishing emotions from physical senses, making a distinction between cognition and emotions, and explaining and transmitting emotions to other people (Montebarocci, Codispoti, Baldaro, and Rossi, 2004; Taylor et al., 1997; Timoney & Holder, 2013). According to Schaffer (1993), alexithymia is defined as the ability of limited thinking and limited use of emotions in order to deal with stressful situations.

Alexithymia was first discussed to explain the symptoms that emerge in psychosomatic disorders (Taylor, Parker, Bagby, and Acklin, 1992). Then findings were obtained on alexithymia accompanies psychiatric disorders that it can be observed with several psychiatric disorders such as use of substance (Mattila, Salminen, Nummi, and Joukamaa, 2006), depression, post-traumatic stress disorder (Kosten, Krystal, Giller, Frank, and Dan, 1992), somatoform disorder, obsessive-compulsive disorder (Bankier, Aigner, and Bach, 2001; Sifneos, 1996), emotion regulation is associated with alexithymia and psychological symptoms and contribute to the development these factors (Bilge, Bilge, Emiral, Özkars, 2018). In addition to the studies in which findings were obtained that alexithymia, there are studies in which it was observed that alexithymia could be observed in healthy individuals who were not diagnosed with any psychiatric disorder (Batıgün & Büyükşahin, 2008; Epözdemir, 2012; Tolmunen et al., 2011). Therefore, it is probable that teacher candidates who have a stress of finding a job may have high levels of intolerance of uncertainty. Since they do not know what they will encounter with in the future; they will have a job, or they will be unemployed. According to statistics more than 400.000 teachers are waiting for a job and this number is getting higher each year (Atama Bekleyen Öğretmen Sayısı Gittikçe Artıyor, 2017). This uncertain situation may cause teacher candidates have cognitive avoidance, in other words they may accept that the job problems will never

be solved, the conditions will never change, and most essentially, they may give up believing and struggling. The intolerance of uncertainty and cognitive avoidance situation may cause their alexithymia level arisen which means that they can experience difficulty in interpreting their emotions, keep distance with other people, and thus, experience difficulty in human relations. Since human relations are crucial for teachers, alexithymia level of teacher candidates has a key role in their job. Therefore, the aim of this study is to examine to what extent teacher candidates' intolerance of uncertainty and cognitive avoidance predict alexithymia. In the literature, it has been observed that there is not any study on the relationship between intolerance of uncertainty, cognitive avoidance and alexithymia variables together. In this respect, it is thought that the current research will fill a gap in the literature.

METHOD

This part of the study consists of research design, participants, data collection instruments, process and data analysis.

Research design

This study was designed as correlational design. The purpose of the correlational design is to determine whether and to what degree a relationship exists between two or more variables or to use these relations to make predictions (Gay, Mills, and Airasian, 2009). In this study, correlational design was used to examine to what extent teacher candidates' intolerance of uncertainty and cognitive avoidance predict alexithymia.

Participants

The universe of the study consists of 863 Faculty of Education senior class students in Afyon Kocatepe University. To determine the participants, simple random sampling method was used. As a result, 254 senior class students which represent the universe (Krejcie & Morgan, 1970) participated in the study. The demographic information of the participants is provided in Table 1.

Table 1. Demographic features of the sample.

		1	2	3	4	5	6		Total
		Male	Female						
Gender	n	78	176						254
	%	30.7	69.3						100
Department		Teacher Training in Pre-school	Teacher Training in Sciences	Teacher Training in Mathematics	Teacher Training in Turkish	Teacher Training in Computer Sciences	Teacher Training in Social Studies	Teacher Training in Primary School	
	n	49	39	22	24	41	33	43	251
	%	19.5	15.5	8.8	9.4	16.3	13.1	17.1	100
Age		Between 20-24	25 and above						
	n	229	21						250
	%	91,6	8,4						100

Data collection instruments

The data of the research were collected with three scales: *20-Item Toronto Alexithymia Scale* (TAS-20) (Bagby, Parker, and Taylor, 1994), which aims to measure alexithymia levels of individuals; *Cognitive Avoidance Scale* (Gosselin et al., 2002) which aims to determine the cognitive avoidance strategies that individuals use and *Intolerance of Uncertainty Scale* (Freeston et al., 1994) which aims

to discover emotional, cognitive, and behavioral reactions to ambiguous situations, implications of being uncertain, and attempts to control the future.

20-Item Toronto alexithymia scale (TAS-20)

TAS-20 which is evaluated in a 5-point Likert type was developed by Bagby et al. (1994). Bagby and colleagues conducted scale development study with two sample groups such as university students and out-patients. For the university student group, they found that the chi-square goodness-of-fit was significant [x^2 (167. N = 401) =502.85, p < 0.0011]. In addition, the GFI (0.886), AGFI (0.856) and RMS (0.069) met the criteria.

According to internal consistency (r=0.81) and test-retest reliability results (r=0.77) (Bagby et al., 1994), it can be said that the scale is reliable. In addition, factor analysis results revealed that the scale has three factors that explained for 31.0% of the total variance. Three factors are (*i*) difficulty identifying feelings, (*ii*) difficulty describing feelings and (*iii*) externally-oriented thinking (Bagby et al., 1994).

TAS-20 was adapted to Turkish by Güleç et al. (2014). The Turkish TAS-20 has three factors, as well. It was found that the Cronbach alpha for the Turkish version of TAS-20 was 0.78.

Cognitive avoidance scale

Cognitive Avoidance Scale was developed by Gosselin et al. (2002) which aims to determine the cognitive avoidance strategies that individuals use. The 5-point Likert scale was arranged to include twenty five (25) items, and based on the confirmatory factor analysis, the five factors – namely, (*i*) suppression, (*ii*) substitution, (*iii*) distraction, (*iv*) avoidance, (*v*) transformation– were as follows:

i. *Suppression:* cognitive effort to avoid a disturbing thought.

ii. *Substitution:* to replace a disturbing thought with a pleasing or with less disturbing ones.

iii. *Distraction*: actions to avoid disturbing thoughts.

iv. *Avoidance:* avoidance of stimuli (situation, person, action, place, object, etc.) triggering disturbing thoughts.

v. *Transformation:* replace the thoughts of the threatening images with an inner conversation.

Akyay (2016) adapted the scale to Turkish. The Cronbach alpha for the total scale was 0.81, and for the five subscales were between 0.71 and 0.90. Akyay (2016) also showed that test-retest reliability (r=.81) within four weeks. In order to determine the construct validity of the scale exploratory factor analysis was conducted and five factors that constitute the original scale were observed to remain under the factors of the adapted scale.

Intolerance of uncertainty scale

Freeston et al. (1994) developed Intolerance of Uncertainty Scale in French version to assess emotional, cognitive and behavioral reactions to ambiguous situations, implications of being uncertain, and attempts to control the future. For the French version of the scale, internal consistency for the retained items was high (.91). According to exploratory factor analysis, 27-item Intolerance of Uncertainty scale has five factors and explain 76% of the total variance. Factors of the scales are (*i*)

uncertainty is unacceptable and should be avoided, (*ii*) being uncertain reflects badly on a person, (*iii*) frustration related to uncertainty, (*iv*) uncertainty causes stress, (*v*) uncertainty prevents action.

Buhr and Dugas (2002) adapted the scale in English. According to the analysis, the internal consistency of the scale was excellent (α=.94) and test-retest reliability coefficient was r=.74. As a result of the factor analysis, four factors were obtained such as (*i*) uncertainty leads to the inability to act, (*ii*) uncertainty is stressful and upsetting, (*iii*) unexpected events are negative and should be avoided and (*iv*) being uncertain about the future is unfair.

The English version of the scale was adapted to Turkish by Sarı and Dağ (2009). Exploratory factor analysis was conducted for the factor analysis. Since the fifth factor consisted of one item, it was decided to remove it from the scale. Therefore in 26-item final version of the scale there are four factors and this factor structure explained the total variance of 51%. According to the results, test-retest reliability was r=.66. The factors for Turkish version of the scale were (*i*) uncertainty is stressful and upsetting, (*ii*) negative self-assessment about uncertainty, (*iii*) disturbing thoughts about the uncertainty of future, (*iv*) uncertainty keeps someone from acting.

Data Collecting

Researchers created the electronic link via Google Forms. The link includes information about the purpose of the research, brief information about the researchers, the statement that data will not be shared with third parties and will be used only for the purposes of the study, instructions about data collection tools and procedures. Researchers visited the students' classrooms and gave information about the research and shared the link with the students who volunteered to participate in the study. Students filled the form via their cell phones. It took approximately 15 minutes.

Data analysis

SPSS 22 Software Package was used for the analyses of the data. Pearson product-moment correlation coefficient analysis was done to determine the correlation between intolerance of uncertainty, cognitive avoidance and alexithymia. Later, multiple regression analysis was conducted to determine to what extent cognitive avoidance and intolerance of uncertainty predict alexithymia. The data were prepared for multiple regression analysis firstly by examining checking kurtosis and skewness values and Kolmogorov-Smirnov test which examines single variable normality. The results of the tests showed that the data displayed a normal distribution. The presence of multiple correlation problems among independent variables is examined through variance inflation factor (VIF), and tolerance values. According to Palant (2011) there is not a multiple correlation problem if tolerance values are higher than .10 and VIF values are lower than 10. The results of the analysis showed that VIF and tolerance values of the variables met the required conditions. In addition, correlation coefficient among variables range between .365 and .553 (p<.000). Because of the fact that these values are lower than .90, multi collinearity problem does not exist (Palant, 2011). According to these conclusions, necessary assumptions were considered to be fulfilled and multiple regression analysis was conducted with 254 pieces of data.

FINDINGS

Pearson product-moment correlation coefficient analysis was done to determine the correlation between intolerance of uncertainty, cognitive avoidance and alexithymia. The results of the analysis and descriptive statistics were displayed in Table 2. According to the correlation coefficients results, there are positive relationship between alexithymia and intolerance of uncertainty (r=.565, p<.000) as well as between alexithymia and cognitive avoidance (r=.420, p<.000). In addition, it was found that there is a positive relationship between intolerance of uncertainty and cognitive avoidance (r=.553, p<.000).

Table 2. The correlational matrix intolerance of uncertainty, cognitive avoidance and alexithymia

Variables	M	SD	1	2	3
1.Toronto Alexithymia Scale	59.58	9.76	-		
2.Intolerance of Uncertainty Scale	78.29	21.58	.365*	-	
3.Cognitive Avoidance Scale	71.18	20.97	.420*	.553*	-

n=254, *p<.000

In order to determine to what extent intolerance of uncertainty and cognitive avoidance predict alexithymia, multiple linear regression analysis was applied, and the results were presented in Table 3 below.

Table 3. Multiple linear regression analysis results regarding the prediction of alexithymia

Variables	B	SE	β	t	p	Zero order r	Partial r
Constant	42.391	2.266		18.711	.000		
Intolerance of uncertainty	.087	.031	.191	2.828	.005	.365	.176
Cognitive avoidance	.146	.032	.314	4.643	.000	.420	.281

R=.449; R^2=.202; $F_{(2, 251)}$=31.736; p<.00

As seen in Table 3, multiple regression analysis results showed that intolerance of uncertainty and cognitive avoidance predicted alexithymia (p<.00). Intolerance of uncertainty and cognitive avoidance explain 20% of total variance for alexithymia. According to the standardized regression coefficient (β), the relative order of importance of independent variables on alexithymia is as follows: cognitive avoidance (.314) and intolerance of uncertainty (.191).

DISCUSSION

The challenge in appointment of teachers is one of the most discussed issues in the public in recent years. This situation creates anxiety in teachers both who are waiting for the graduation from the faculties of education and who are about to graduate. In people exposed to uncertainty, uncertainty leads to the emergence of intolerance and this leads to disruption in many systems from cognitive structure to emotion-state (Boswell et al., 2013; Hong & Cheung, 2015) and alexithymia (Abbate-Daga, Quaranta, Marzola, Amianto, and Fassino, 2015; Berrocal, Pennato, and Bernini, 2009; Yıldız & Güllü, 2019). Therefore, the aim of this study is to examine to what extent teacher candidates' intolerance of uncertainty and cognitive avoidance predict alexithymia.

According to the results, it was observed that intolerance to uncertainty and cognitive avoidance significantly predicted alexithymia. The intolerance to uncertainty and cognitive avoidance together explain 20% of the total variance in alexithymia. As intolerance to uncertainty and cognitive avoidance increased, alexithymia levels also increased. These results show that teacher candidates' intolerance to uncertainty and cognitive avoidance cause them to experience alexithymia. According to the results, there is a significant and positive relationship between intolerance to uncertainty and alexithymia. People who experience intolerance of uncertainty tend to focus on the negative aspects of each event (Dugas et al., 2004), and people with a high level of intolerance of uncertainty become a pessimistic personality. Information processing processes of pessimistic people are impaired and anxiety disorders and depression-like disorders are higher (Chang & Farrehi, 2001). Intolerance to uncertainty is related with anxiety and general anxiety disorders (Dugas et al., 1998; Holaway et al., 2006; Grenier et al., 2005), cognitive avoidance (Bottesi et al., 2016), and alexithymia (Abbate-Daga, Quaranta, Marzola, Amianto, and Fassino, 2015; Berrocal et al., 2009; Yıldız & Güllü, 2019). It is known that intolerance of uncertainty and alexithymia makes it difficult for people to deal with the problems they experience emotionally because of their negative impact on their social and emotional information processing skills (Abbate-Daga et al., 2015).

In addition, it is found that there is a significant positive relationship between cognitive avoidance and alexithymia. This result is supported by the literature as well (Barlow, 2000; Gross &

John, 2003; John & Gross, 2004). As people are admitting that problems will never be solved, the conditions will never change, and giving up struggling, their alexithymia level arisen which means that they can experience difficulty in interpreting their emotions.

Limitations and Directions for Future Research

Though the results of this research provide essential findings for related literature there are some limitations which can be considered for future research. The first limitation is that nearly 70% of the participants are females. Due to the fact that intolerance of uncertainty and cognitive avoidance level can be changed according to gender, similar research can be designed on a sample which includes equally male and female participants. Another limitation is that the intolerance of uncertainty predicts alexithymia at a low level. Therefore, similar researches can be conducted with different variables such as anxiety disorders, pessimism, self-compassion and etc. on similar sample group. Lastly, qualitative researches can be conducted on teacher candidates to provide deep information about intolerance of uncertainty, cognitive avoidance, alexithymia and the relationship between these variables.

Alexithymic individuals experience significant failures in recognizing and expressing their emotions, in adapting and coping, and in their cognitive capacity. Therefore, cognitive methods and techniques are useful in increasing emotional awareness of alexithymic individuals, decreasing their instinctual tension, cognitive distortions related to emotions, and recognizing and changing automatic thoughts. In terms of cognitive therapy, reflective thinking, verbal communication, sharing emotions with others, daydreaming and playing games can be used. Cognitive methods and techniques help the alexithymic individual to recognize the alexithymic mindset. Thus, individuals with alexithymia learn to distinguish their feelings and thoughts. Having this also facilitates the verbal expression of emotions and self-expression (Koçak, 2002). In addition to the cognitive approach, behavioral approach (Sifneos, 1996), psychodrama and gestalt approach, self-relaxation training and attachment therapy, biofeedback are also recommended in eliminating alexithymic features (Cameron, Ogrodniczuk, and Hadjipavlou, 2014; Koçak, 2002). In this context, practitioners working on alexithymia can use these approaches and techniques to reduce individuals' alexithymia levels.

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