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THE ANALYSIS OF COGNITIVE EMOTION REGULATION SKILLS OF PRE-SERVICE MUSIC TEACHERS IN TERMS OF DIFFERENT VARIABLES

Tuba YOKUŞ[1], Hamit YOKUŞ[1], Ş. Göktuğ KALAYCIOĞLU[1]
[1] Gaziosmanpaşa University, Education Faculty,
Music Education Department
tuba.yokus@gop.edu.tr

ABSTRACT
Regulation skill of emotional situations is seen as an important and necessary initial way to manage problems, anxiety and difficulties. The purpose of this research is to analyze the cognitive emotion regulation skills of pre-service music teachers according to different variables. 278 pre-service music teachers consist of the study group of the research. In accordance of the purpose of the study, the Cognitive Emotion Regulation Questionnaire which is developed by Garnefski, Kraaij and Spinhoven (2001) and adapted to Turkish by Onat and Otrar (2010), is used as a means of data collection. Socio-demographic characteristics of pre-service music teachers are obtained from personal information form prepared by the researcher. As a result of the analysis on the research data, it is found that the cognitive emotion regulation skills of pre-service music teachers are significantly different in terms of various sub-dimensions as parents' educational level, number of siblings. However, according to the variables of gender and class differences, a statistically significant difference is not found.
Keywords: Emotion regulation, music education, pre-service music teacher.

INTRODUCTION

Emotions are generally defined as senses with physiologic and cognitive elements, which affect behavior (Morgan, 1993: as cited in Onat & Otrar, 2010). Emotions are one of the important psychological components accompanying our lives which affect and are affected from our lives (Sarp & Tosun, 2011). Contemporary functional perspectives emphasize that emotions play an important role in giving necessary behavioral reactions, decision-making and memory enhancement and also in interpersonal interaction. However, emotions can be harmful when they appear at a wrong time or when they cannot be controlled. Emotion regulator functions might be automatic or controlled, conscious or unconscious. Additionally, emotion regulation can intensify or can only be preserved depending on the objectives of the individual. The degree of emotion regulation can be changed depending on substantial changes about emotion experiences (Gross & Thompson, 2007).

According to Richard and Gross (2000), if the function of emotion regulation is to affect emotions, the first thing to do should be to understand whether emotion regulation really changed empirical, behavioral and physiologic emotion reaction components. However, feeling and looking good is not the priority of the individuals at their emotionally depressed times. Individuals also want to operate their cognitive functions at the optimum manner. Thinking that emotions often appear or are more intensively experienced when important objectives are the case, this is not a surprise. Emotional and cognitive processes are known to be strictly related in daily life and humans often regulate their emotions through cognitive protection function (Damasio, 1994: as cited in Richard & Gross, 2000).

Garnefski, Kraaij and Spinhoven (2001) developed cognitive emotion regulation to include nine conceptual sub-dimensions. These sub-dimensions can be summarized as follows: self-blame sub-dimension refers to blaming oneself for the situation he/she experiences. They are considerably emotion-focused thoughts and behaviors (feeling angry or anxious etc.) Other-blame refers to blaming other people for the situation an individual experiences. Acceptance refers to accepting what the individual have experienced and the opinion of reality and what he/she experienced. In many situations acceptance can be considered as a functional coping. Refocus on planning refers to thinking of how to react or what steps to take against negative events. Carver et al., (1989: as cited in Garnefski et al., 2001) reported that using planning as a coping strategy was related positively related with optimism and self-esteem and negatively related with anxiety. Positive refocusing is associated with thinking in a more optimistic, nice and cheerful manner instead of thinking about the reality of events.

Positive refocusing can be considered as a form of mental catharsis about the events and means thinking more about positive things and less about real events. Rumination refers to thinking about emotions and opinions about negative events. It was reported that rumination is highly correlated with tendency to high level of depression as a coping strategy (Nolen, Hoeksema, Parker & Larson, 1994: as cited in Garnefski et al., 2001). Positive reappraisal is related to combination of events in a positive manner. Carver et al., (1989: as cited in Garnefski et al., 2001) reported that, similar to refocus on planning, positive reappraisal as a coping strategy is positively correlated with optimism and self-esteem and negatively correlated with anxiety. Putting into perspective refers to the opinions about trivialization of the seriousness or relativity of the event when compared to other events. Catastrophizing sub-dimension refers to the opinions caused by a bad experience. Generally catastrophizing is considered to be associated with maladjustment, emotional pain and depression (Garnefski et al., 2001).

According to Gross (2002), managing emotion regulation is one of the greatest challenges of life and emotions play an important role in communication, interpersonal relationships and personal satisfaction. This study was designed to investigate cognitive emotion regulation skills of pre-service music teachers according to various variables. The significance of the study is that it determines whether cognitive emotion regulation skills of pre-service music teachers varied according to various variables.

The following questions were tried to be answered in the study:
1. Do cognitive emotion regulation skills of pre-service music teachers vary according to the university they are enrolled in?
2. Do cognitive emotion regulation skills of pre-service music teachers vary according to gender variable?
3. Do cognitive emotion regulation skills of pre-service music teachers vary according to grade level?
4. Do cognitive emotion regulation skills of pre-service music teachers vary according to educational level of parents?
5. Do cognitive emotion regulation skills of pre-service music teachers vary according to number of siblings?

METHOD

Study Model

This study used survey method. Survey studies include defining the characteristics of a group through a series of tools such as question forms or tests (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2009). Cognitive emotion regulation skills of pre-service music teaches were analyzed in terms of socio-demographic variables.

Study Group

Study group of the study consisted of 1. (n=86), 2. (n=75), 3. (n=66) and 4.grade (n=51) students (N=278) enrolled in Gaziosmanpaşa University (GOU) Faculty of Education (EF) Department of Fine Arts Teaching (DFAT) Program of Music Teaching (PMT) (N= 70), Uludag University (UU) EF DAT PMT (N= 113) and Inonu University (IU) EF GSEB MEABD (N=95) who voluntarily participated in the study in 2011-2012 academic year. A total of 165 (59.4%) of pre-service music teachers were female while 113 (40.6%) were male. As for the educational level of mothers, mothers of 100 (36.0%) of the participants were primary education graduates; mothers of 119 (42.8%) of the participants were secondary school graduates and mothers of 59 (21.2%) participants were higher education graduates. On the other hand, fathers of 64 (23.0%) participants were primary education graduates; fathers of 104 (37.4%) participants were secondary education graduates and fathers of 110 (39.6%) participants were higher education graduates. As for the number of siblings, 119 (42.8%)

of the participants has 0-1 siblings; 134 (48.2%) had 2-4 siblings and 25 (9.0%) had 5 and more siblings.

Data Collection Tools

Cognitive Emotion Regulation Questionnaire (CERQ) which was developed by Garnefski et al., (2001) and was adapted into Turkish by Onat and Otrar (2010) and Personal Information Form were used for data collection. CERQ is a five-itemLikert type scale [(1) Strongly Unfavorable (2) Slightly favorable (3) Partially Favorable (4) Highly Favorable (5) Strongly Favorable] consisting of 36 items and nice sub-dimensions. The first sub-dimension is self-blame; the second sub-dimension is acceptance; the third sub-dimension is rumination; the fourth sub-dimension is positive refocusing; the fifth sub-dimension is refocus on planning; the sixth sub-dimension is positive reappraisal; the seventh sub-dimension is putting into perspective; the eighth sub-dimension is catastrophizing and the ninth sub-dimension is other-blame. Each sub-dimension contained four items. Internal consistency coefficient calculated for the general of items was found to be .78. Consistency coefficients of sub-dimensions of CERQ were found to be as follows: self-blame sub-dimension (items 1, 10, 19, 28.) .56; acceptance sub-dimension (items 2, 11, 20, 29.) .56; rumination sub-dimension (items 3,12,21,30.) .62; positive refocusing sub-dimension (items 4, 13, 22, 31.) .42; refocus on planning sub-dimension (5,14,23,32) .68; positive reappraisal sub-dimension (items 6, 14, 24, 33.) .66; putting into perspective sub-dimension (items 7, 16, 25, 34.) .51; catastrophizing sub-dimension (items 8, 17, 26, 35.) .71; other-blame sub-dimension (items 9, 18, 27, 36.) .71.

α value of cognitive emotion regulation scale was found to be .81. Personal information form developed by the researcher was used to collect information on various variables about demographic characteristics of pre-service music teachers. This form contained questions such as the universities pre-service music teachers are enrolled in, gender, grade levels and educational level of parents. Scores of personal information and data collection tools were coded and data was entered and evaluated in SPSS package program.

Data Analysis

"Frequency and percentage" calculations were made to determine demographic characteristics of pre-service music teachers according to variables. One factor "Anova" was used to determine whether there was a significant difference in terms of "cognitive emotion regulation skills" according to university, grade level, parents education level, number of siblings variables. Independent group "t" test was used to determine whether there was a significant difference in terms of "cognitive emotion regulation skills" according to gender variable.

FINDINGS

In this section, results of the study were analyzed in line with the sub-problems of the study.

Table 1. One Factor Anova Results for Cognitive Emotion Regulation (CER) Skills of Pre-Service Music Teachers According to The University They Are Enrolled In.

Subscales		Sum of squares	df	Mean square	F	p	Significant difference
Self-blame	Between groups	72.829	2	36.415	4.933	,008	**3-2**
	Within groups	2030.153	275	7.382			
	Total	2102.982	277				
Acceptance	Between groups	34.522	2	17.261	2.162	.117	
	Within groups	2195.809	275	7.985			
	Total	2230.331	277				
Rumination	Between groups	27.920	2	13.960	1.449	.236	

Subscales		Sum of squares	df	Mean square	F	p	Significant difference
	Within groups	2648.541	275	9.631			
	Total	2676.460	277				
Positive refocusing	Between groups	5.627	2	2.814			
	Within groups	1891.787	275	6.879	.409	.665	
	Total	1897.414	277				
Refocus on planning	Between groups	51.420	2	25.710			
	Within groups	2144.022	275	7.796	3.298	.038	**2-1**
	Total	2195.442	277				
Positive reappraisal	Between groups	25.867	2	12.933			
	Within groups	2295.846	275	8.349	1.549	.214	
	Total	2321.712	277				
Putting into perspective	Between groups	19.488	2	9.744			
	Within groups	1810.023	275	6.582	1.480	.229	
	Total	1829.511	277				
Catastrophizing	Between groups	45.901	2	22.950			
	Within groups	2966.962	275	10.789	2.127	.121	
	Total	3012.863	277				
Other-blame	Between groups	9.119	2	4.560			
	Within groups	2087.791	275	7.592	.601	.549	
	Total	2096.910	277				

1:GOU, 2: İU, 3: UU

As indicated in Table 1, according to one factor Anova results for "cognitive emotion regulation skills" according to university variable, there was a significant difference between cognitive emotion regulation skills of pre-service music teachers in self-blame [$F_{(2-275)}$=4.93, p<.05] and refocus on planning sub-dimensions [$F_{(2-275)}$=3.30, p<.05] at the level of .05. According to Scheffe results, cognitive emotion regulation scores of pre-service music teachers in IU ($\bar{X}$= 10.78) were lower than those of pre-service music teachers in UU ($\bar{X}$= 11.97) in self-blame sub-dimension. According to Scheffe results for refocus on planning sub-dimension, cognitive emotion regulation scores of pre-service music teachers in IU were found to be lower than those of pre-service music teachers in GOU ($\bar{X}$= 16.17) On the other hand, there was no significant difference in acceptation [$F_{(2-275)}$=2.16, p>05], rumination [$F_{(2-275)}$=1.45, p>05], positive refocusing [$F_{(2-275)}$=.40, p>05], positive reappraisal [$F_{(2-275)}$=1.55, p>05], putting into perspective [$F_{(2-275)}$=1.48, p>05], catastrophizing [$F_{(2-275)}$=2.12, p>05] and other-blame [$F_{(2-275)}$=.601, p>05] sub-dimension in terms of university variable.

Table 2. Independent Group "T" Test Results for "CER" Skills of Pre-Service Music Teachers According to Gender Variable

Subscales	Gender	N	$\bar{X}$	S	df	t	p
Self-blame	Female	165	11.4788	2.75767	276	.160	.873
	Male	113	11.4248	2.76394			
Acceptance	Female	165	11.9455	2.82034	276	1.300	.195
	Male	113	11.4956	2.85396			
Rumination	Female	165	14.6485	2.98330	276	1.361	.175
	Male	113	14.1327	3.27192			
Positive refocusing	Female	165	13.0364	2.57069	276	.861	.390
	Male	113	12.7611	2.68685			
Refocus on planning	Female	165	15.5697	2.58094	276	.395	.693
	Male	113	15.4336	3.13641			
Positive reappraisal	Female	165	15.3030	2.75952	276	.907	.365
	Male	113	14.9823	3.08505			
Putting into perspective	Female	165	13.4545	2.41806	276	2.052	.041
	Male	113	12.8142	2.74366			
Catastrophizing	Female	165	10.0242	3.42329	276	-1.837	.067
	Male	113	10.7611	3.06849			
Other-blame	Female	165	10.9333	2.66672	276	-.619	.536
	Male	113	11.1416	2.87808			

As indicated in Table 2, according to independent "t" test results performed for cognitive emotion regulation skills sub-dimension scores of pre-service music teachers according to variable, there was no statistically significant difference; cognitive emotion regulation scores of female and male students did not show a difference.

Table 3. One Factor Anova Results for "CER" Skills of Pre-Service Music Teachers According to Grade Level Variable

Subscales		Sum of squares	df	Mean square	F	p	Significant difference
Self-blame	Between groups	17.306	3	5.769	.758	.519	
	Within groups	2085.676	274	7.612			
	Total	2102.982	277				
Acceptance	Between groups	27.066	3	9.022	1.122	.341	
	Within groups	2203.265	274	8.041			
	Total	2230.331	277				
Rumination	Between groups	44.466	3	14.822	1.543	.204	
	Within groups	2631.995	274	9.606			
	Total	2676.460	277				
Positive refocusing	Between groups	30.094	3	10.031	1.472	.222	
	Within groups	1867.320	274	6.815			
	Total	1897.414	277				
Refocus on planning	Between groups	52.306	3	17.435	2.229	.085	
	Within groups	2143.136	274	7.822			
	Total	2195.442	277				
Positive reappraisal	Between groups	77.806	3	25.935	3.167	.025	
	Within groups	2243.907	274	8.189			
	Total	2321.712	277				
Putting into perspective	Between groups	19.315	3	6.438	.975	.405	
	Within groups	1810.196	274	6.607			
	Total	1829.511	277				
Catastrophizing	Between groups	79.530	3	26.510	2.47	.062	
	Within groups	2933.333	274	10.706			
	Total	3012.863	277				
Other-blame	Between groups	3.658	3	1.219	.160	.923	
	Within groups	2093.252	274	7.640			
	Total	2096.910	277				

As indicated in Table 3, according to "one factor Anova" results for grade level variable, there was a statistically significant difference between cognitive emotion regulation scores of pre-service music teachers in terms of sub-dimensions.

Table 4. One Factor Anova Results for "CER" Skills of Pre-Service Music Teachers According to Mothers' Educational Level

Subscales		Sum of squares	df	Mean square	F	p	Significant difference
Self-blame	Between groups	5.543	2	2.771	.363	.696	
	Within groups	2097.440	275	7.627			
	Total	2102.982	277				
Acceptance	Between groups	9.128	2	4.564	.565	.569	
	Within groups	2221.203	275	8.077			
	Total	2230.331	277				
Rumination	Between groups	20.557	2	10.279	1.064	.346	
	Within groups	2655.903	275	9.658			
	Total	2676.460	277				
Positive refocusing	Between groups	18.820	2	9.410	1.378	.254	
	Within groups	1878.593	275	6.831			
	Total	1897.414	277				

Subscales		Sum of squares	df	Mean square	F	p	Significant difference
Refocus on planning	Between groups	2.396	2	1.198	.150	.861	
	Within groups	2193.047	275	7.975			
	Total	2195.442	277				
Positive reappraisal	Between groups	5.843	2	2.922	.347	.707	
	Within groups	2315.869	275	8.421			
	Total	2321.712	277				
Putting into perspective	Between groups	27.793	2	13.896	2.121	.122	
	Within groups	1801.718	275	6.552			
	Total	1829.511	277				
Catastrophizing	Between groups	116.545	2	58.273	5.533	.004	**3-1. 3-2**
	Within groups	2896.318	275	10.532			
	Total	3012.863	277				
Other-blame	Between groups	26.018	2	13.009	1.728	.180	
	Within groups	2070.892	275	7.531			
	Total	2096.910	277				

1:Primary Education, 2: Secondary Education, 3: Higher Education

It is understood from Table 4 that according to "one factor Anova" results for "cognitive emotion regulation skills" according to the mothers' educational level variable, cognitive emotion regulation scores of pre-service music teachers significantly varied in catastrophizing sub-dimension at the significance level of .05 [$F_{(2-275)}$=5.53, p<.05]. Scheffe results showed that in catastrophizing sub-dimension, pre-service music teachers, whose mothers were graduates of higher education ($\bar{X}$= 9.08), had lower cognitive emotion regulation scores than those whose mothers were graduates of primary education ($\bar{X}$= 10.75) and secondary education ($\bar{X}$= 10.57). There was no statistically significant difference in terms of other dimensions.

Table 5. One Factor Anova Results for "CER" Skills of Pre-Service Music Teachers According to Fathers' Educational Level

Subscales		Sum of squares	df	Mean square	F	p	Significant difference
Self-blame	Between groups	13.756	2	6.878	.905	.406	
	Within groups	2089.226	275	7.597			
	Total	2102.982	277				
Acceptance	Between groups	14.269	2	7.135	.885	.414	
	Within groups	2216.062	275	8.058			
	Total	2230.331	277				
Rumination	Between groups	23.898	2	11.949	1.239	.291	
	Within groups	2652.562	275	9.646			
	Total	2676.460	277				
Positive refocusing	Between groups	5.900	2	2.950	.429	.652	
	Within groups	1891.514	275	6.878			
	Total	1897.414	277				
Refocus on planning	Between groups	10.961	2	5.481	.690	.502	
	Within groups	2184.481	275	7.944			
	Total	2195.442	277				
Positive reappraisal	Between groups	5.090	2	2.545	.302	.740	
	Within groups	2316.623	275	8.424			
	Total	2321.712	277				
Putting into perspective	Between groups	4.537	2	2.269	.342	.711	
	Within groups	1824.974	275	6.636			

Subscales		Sum of squares	df	Mean square	F	p	Significant difference
	Total	1829.511	277				
Catastrophizing	Between groups	99.539	2	49.769	4.698	.010	**3-1**
	Within groups	2913.325	275	10.594			
	Total	3012.863	277				
Other-blame	Between groups	24.633	2	12.317	1.634	.197	
	Within groups	2072.277	275	7.536			
	Total	2096.910	277				

1:Primary Education, 2: Secondary Education, 3: Higher Education

It is understood from Table 5 that, according to One factor Anova results for "cognitive emotion regulation skills" according to father's education level variable, there was a significant difference between cognitive emotion regulation scores of pre-service music teachers in catastrophizing sub-dimension at the significance level of .05 [$F_{(2-275)}$=4.69, p<.05]. Scheffe results showed that in catastrophizing sub-dimension, pre-service music teachers whose fathers were graduates of higher education ($\bar{X}$= 9.80) had lower cognitive emotion regulation skills than those whose fathers were the graduates of primary education ($\bar{X}$= 11.35). There was no statistically significant difference in terms of other dimensions.

Table 6. One Factor Anova Results for "Cer" Skills of Pre-Service Music Teachers According to Number of Siblings Variable

Subscales		Sum of squares	df	Mean square	F	p	Significant difference
Self-blame	Between groups	5.722	2	2.861	.375	.688	
	Within groups	2097.260	275	7.626			
	Total	2102.982	277				
Acceptance	Between groups	7.311	2	3.655	.452	.637	
	Within groups	2223.020	275	8.084			
	Total	2230.331	277				
Rumination	Between groups	.155	2	.078	.008	.992	
	Within groups	2676.305	275	9.732			
	Total	2676.460	277				
Positive refocusing	Between groups	6.048	2	3.024	.440	.645	
	Within groups	1891.366	275	6.878			
	Total	1897.414	277				
Refocus on planning	Between groups	9.951	2	4.976	.626	.535	
	Within groups	2185.491	275	7.947			
	Total	2195.442	277				
Positive reappraisal	Between groups	14.021	2	7.010	.835	.435	
	Within groups	2307.692	275	8.392			
	Total	2321.712	277				
Putting into perspective	Between groups	8.361	2	4.181	.631	.533	
	Within groups	1821.150	275	6.622			
	Total	1829.511	277				

Subscales		Sum of squares	df	Mean square	F	p	Significant difference
Catastrophizing	Between groups	111.479	2	55.740	5.283	.006	**3-1**
	Within groups	2901.384	275	10.550			
	Total	3012.863	277				
Other-blame	Between groups	30.006	2	15.003	1.996	.138	
	Within groups	2066.905	275	7.516			
	Total	2096.910	277				

1: 0-1, 2: 2-4, 3: 5 and more

It is understood from Table 6 that according to one factor Anova results for "cognitive emotion regulation" skills according to number of siblings variable, in catastrophic sub-dimension, cognitive emotion regulation scores of pre-service music teachers showed a difference at the level of .05 [$F_{(2-275)}$=5.28, p<.05]. Scheffe results showed that in catastrophizing sub-dimension, pre-service music teachers who had 0-1 siblings ($\bar{X}$= 9.72) had lower cognitive emotion regulation skills than those who has 5 or more siblings ($\bar{X}$= 11.88). There was no statistically significant difference in terms of other dimensions.

RESULT AND DISCUSSION

Based on a review of the literature on the strategies in cognitive dimension about emotion regulation, it can be stated that previous research mainly focused on the relationship of cognitive emotion regulation with negative life events such as depression, anxiety and concern (Garnefski, Boon, & Kraaij, 2003; Garnefski & Kraaij 2006; Garnefski et al., 2001; Martin & Dahlen 2005). Garnefski et al., (2001) investigated negative life events, emotional problems and cognitive emotion regulation situations of high school students and reported that cognitive coping strategies played an important role in symptom situations of negative life experience, depression and anxiety. In another study titled cognitive emotion regulation in prediction of depression, anxiety, stress and anger, Martin and Dahlen (2005) investigated the relationship between cognitive emotion regulation skills and depression, anxiety, stress and anger and reported that cognitive emotion regulation was one of the most important determinants of negative emotions in self-blame, rumination, catastrophizing positive reappraisal sub-dimensions.

In the present study, in self-blame and refocus on planning sub-dimensions, cognitive emotion regulation skills of pre-service music teachers according to university variable significantly varied at the significance level of .05. In self-blame sub-dimension, it was found that cognitive emotion regulation scores of pre-service music teachers in IU were lower than those of pre-service students in UU. As for the refocus on planning sub-dimension, it was found that cognitive emotion regulation scores of pre-service music teachers in IU were lower than those of pre-service teachers in GOU. There was no statistically significant difference in other sub-dimensions according to university variable. Based on recent studies, (Garnefski et al., 2001; Garnefski et al., 2003; Garnefski, Legerstee, Kraaij, Kommer, & Teerds 2002; Garnefski, Rieffe, Jellesma, Terwogt, & Kraaij, 2007; Kraaij, Garnefski, Wilde, et al., 2003; Kraaij, Pruymboom, & Garnefski, 2002) Garnefski and Kraaij (2006) reported that there was a significant relationship between cognitive emotion regulation skills and emotional problems and stated that the individuals who generally used cognitive emotion regulation strategies such as rumination, catastrophizing and self-blame might experience more emotional problems while the use of strategies such as positive reappraisal, positive refocusing might reduce emotional problems or lack of defense. In this framework, based on obtained data, it can be stated that pre-service music teachers in IU cope with emotional problems better than those in UU; while pre-service music teachers in GOU cope with emotional problems better than those in IU.

There was no statistically significant difference in cognitive emotion regulation scores of pre-service music teachers according to gender variable. Unlike the findings of the present study, Martin and Dahlen (2005) reported that females had higher cognitive emotion regulation scores than males in rumination, catastrophizing positive refocusing, refocus on planning, positive reappraisal sub-dimensions; while males had higher scores in other-blame sub-dimension. On the other hand, Garnefski, Teerds, Kraaij, Legerstee, and Kommer (2004) analyzed the differences between females and males in terms of cognitive emotion regulation strategies and depressive symptoms and found that females used cognitive emotion regulation skills higher than males in rumination, catastrophizing positive refocusing sub-dimensions. It was reported that self-blame, rumination and catastrophizing strategies were highly correlated with depression scores in both groups; while there was a low correlation between positive reappraisal and depression scores.

Cognitive emotion regulation scores of pre-service teachers significantly varied (.05) in catastrophizing sub-dimension according to educational level of parents. It was found that pre-service teachers, whose mothers were higher education graduates, had lower cognitive emotion regulation scores than those whose mothers were primary education or secondary education graduates. In addition, it was found that pre-service teachers, whose fathers were higher education graduates, had lower cognitive emotion regulation scores than those whose fathers were primary education or secondary education graduates. There was no statistically significant difference in terms of educational level of parents' variable in other sub-dimensions. In conclusion, considering that catastrophizing sub-dimension is related with emotional problems or depression (Garnefski et al., 2004; Garnefski & Kraaij 2006) it can be stated that pre-service music teachers, whose parents were higher education graduates, coped with emotional problems better and had a lower level of tendency for depression. A review of the literature found no study on the relationship of parents' educational level within the scope of cognitive emotion regulation and socio-demographic variables. It was found that cognitive emotion regulation scores of pre-service music teachers sufficiently varied (.05) according to number of siblings variable in catastrophizing sub-dimension. It was observed that cognitive emotion regulation score of pre-service music teachers who has 0-1 siblings were lower than those who had 5 and more siblings. Based on this result, it can be stated that as the number of siblings decreases, pre-service music teachers become more successful in coping with emotional problems. A review of the literature found no studies on number of siblings within the scope of cognitive emotion regulation and socio-demographic variables. Considering that catastrophizing sub-dimension is related with emotional problems or depression, unlike the findings of the present study, Öznel et al., (2002) investigated the relationship between depression symptoms and socio-demographic characteristics and found that as number of siblings increased, ratio of showing depressive symptoms decreased. The researchers reported that while ratio of showing depressive symptoms was 46.2% in single children, this ratio was 24.6% in children with 3 or more siblings. There was no statistically significant difference in other sub-dimensions according to number of sibling variable. In addition, cognitive emotion regulation scores of pre-service music teachers showed a statistically significant difference according to grade level variable.

In conclusion, in our study group cognitive emotion regulation scores of pre-service music teachers showed a significant difference in various sub-dimensions according to "university they are enrolled in", "parents' educational level" and "number of siblings" variables. A review of the literature found no study in Turkey to determine cognitive emotion regulation skills of university students and pre-service music teachers. Conducting similar studies in general of Turkey in such a way to include pre-service music teachers in other music teaching departments can provide more generalizable or different results. In addition, considering that cognitive emotion regulation skills are strongly related with emotional problems (anxiety, concern, depression etc.) studies which use relational screening model can be carried out.

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