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# Undergraduate music students' depression, anxiety and stress levels: a study from Turkey

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## Abstract

The aim of this study was to assess the depression, anxiety and stress levels of undergraduate music students and to describe the mood differences with respect to some of the demographic variables. The study group consisted of 160 participants 33.7% of whom were male. The correlations between depression-anxiety ( $r=.81$ ;  $p<.01$ ), anxiety-stress ( $r=.85$ ;  $p<.01$ ) and depression-stress ( $r=.78$ ;  $p<.01$ ) were significant. There was no statistically significant relationship between gender and depression, anxiety or stress. The depression, anxiety and stress levels of 4 th grade students were found to be higher than others. Students with bad economic status had higher depression levels than those with moderate or good economic status.

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## 1. Introduction

University students are often subjected to different kind of stressors, such as moving away from the home for the first time, residing with other students, experiencing reduced adult supervision, the pressure of academics with an obligation to succeed, an uncertain future and difficulties of integrating into the system. Students also face social, emotional, physical and family problems which may affect their learning ability and academic performance and these changes may increase the risk of depression and affects general health status (Bayati et al. 2009)

Understanding of depression, anxiety and stress levels in undergraduate music students is important. Depression is characterized as a mood disorder. There are four sets of the symptoms of depression namely emotional, cognitive, motivation and physical. Depression is associated with a constellation of psychological, behavioral and physical symptoms (Ghaderi et al. 2009). Depression, anxiety and stress are among the psychological problems that are common among students. Many students suffered from psychological problems which in turn affected their academic performance (Md Aris Safree Md Yasin & Dzulkifli, 2011). College students face many challenges in their pursuit of higher education. The continuing demands of schoolwork and presence of stressors may lead to negative outcomes (David 2010). Experts have reported a recent increase in the number of college students with severe psychological problems, including music majors (Bernhard, 2007).

Stress and burnout are widespread in the college music student culture as it is largely accepted in the professional music world. If a student is given unclear instructions on playing piece of music, he or she does not know what direction to work in and that is stressful (Orzel, 2010).

Music majors may face unique sources of stress including performance anxiety, perfectionism, career concerns, and lack of respect (Bernhard, 2007).

There are few studies among music students in terms of psychological well-being. Spahn, Strukely, and Lehmann found depression and anxiety rates among music students higher than those of other undergraduates. Some studies assessed stress of undergraduate music students and found high levels of stress (Bernhard, 2005; 2007; Orzel, 2010; Sternbach, 2008).

In Turkey, epidemiological data about psychological morbidity among undergraduate students are not well-studied. Although some recent studies revealed high rates of depression, anxiety and stress and even suicidal ideations among university students (Aktekin et al., 2001; Arslan et al., 2009; Bayram & Bilgel, 2008; Bostanci et al., 2005; Ozdemir, & Rezaki, 2007). In their study among music students Karaoglu & Karaoglu (2009) found high rates of depression and anxiety but no differences compared to other undergraduate students.

The aim of this study was to assess the depression, anxiety and stress levels of undergraduate music students by using the DASS-42 instrument and to describe the mood differences with respect to some of the demographic variables like as age, gender, parents' economic situation and residency.

## 2. Method

### 2.1. Participants

A total of 160 undergraduate music education students of the Uludag University who declared their voluntary participation filled out anonymously the self reported DASS-42 instrument and a questionnaire about their socio-demographic characteristics

### 2.2. Instrument

The DASS-42 is a self-administered instrument developed by Lovibond & Lovibond (1995) with well-established psychometric properties in clinical and community samples and has been shown to differentiate between the three states of depression, anxiety and stress (Crawford & Henry, 2003; Lovibond & Lovibond, 1995). The Turkish version of DASS was constructed by Uncu et al. (2007). Items on the DASS are rated on 4-point likert - type, ranging from 0 (did not apply to me at all) to 3 (applied to me very much, or most of the time). Higher scores on each subscale indicate higher levels of depression, anxiety and stress. The total scores of each sub-scale were calculated by summing up the points of relevant items. Each sub-scale is scored separately. Classification of depression, anxiety and stress according to the cut-off points is showed on Table 2.

Statistical analyses were conducted with the SPSS 16. Descriptive statistics, reliability analysis, correlation, t tests and variance analyses (F-test) were performed to compare differences in depression, anxiety and stress among socio-demographically different student groups

## 3. Results

### Participants' characteristics

The study group was consisted of 160 participants and 33.7% was male. The mean age was  $20.30 \pm 1.81$  (mean  $\pm$  s.d.) years. Distribution of the participants by demographic characteristics is shown in Table 1.

Table 1 Descriptive Statistics

	N	%		N	%
Gender			Age		
Female	106	66.3	18	26	16.3
Male	54	33.7	19	33	20.6
Total	160	100.0	20	35	21.9
Grade			21	37	23.1
1. grade	39	24.4	22	11	6.9
2. grade	41	25.6	23	5	3.1
3. grade	40	25.0	24	6	3.8
4. grade	40	25.0	25	7	4.4

Total	160	100.0	Total	160	100.0
Mother's education			Father's education		
Primary	35	21.9	Primary	18	11.3
Secondary	22	13.8	Secondary	19	11.9
High	58	36.3	High	52	32.5
University+	45	28.1	University+	71	44.4
Total	160	100.0	Total	160	100.0
Economic status			Educational Satisfaction		
Good	55	34.4	Yes	94	58.8
Moderate	93	58.1	No	33	20.6
Bad	12	7.5	Undecided	33	20.6
Total	160	100.0	Total	160	100.0
Currently living with			Previous place of residency		
Family	43	26.9	Town	26	16.3
Friends	51	31.9	City	54	33.8
Alone	40	25.0	Metropolitan area	80	50.0
Other	26	16.3	Total	160	100.0
Total	160	100.0			

### Reliability and Correlations

Cronbach  $\alpha$  values were calculated to assess the internal consistency of the DASS-42 (Table 2).

Table 2. Depression, Anxiety and Stress Scores; Means (M), Standard Deviations (SD) for Scales and Cronbach  $\alpha$  values (N=160)

Cut-off points and levels of depression, anxiety and stress						Study results				
Variables	Normal	Mild	Moderate	Severe	Extremely Severe	Item	Cronbach $\alpha$	Mean	SD	Severity
Depression	0-9	10-13	14-20	21-27	28+	14	.94	12.24	9.52	Mild
Anxiety	0-7	8-9	10-14	15-19	20+	14	.92	11.67	8.74	Moderate
Stress	0-14	15-18	19-25	26-33	34+	14	.93	16.86	9.38	Mild

The reliability coefficients were found .94 for depression, .92 for anxiety and .93 for stress. These results revealed high internal consistencies.

Pearson correlation coefficients were calculated between the depression, anxiety and stress. These correlations between the scales were significant and positive as they are presented in Table 3.

Table 3 Correlations

	Depression	Anxiety	Stress
Depression	1		
Anxiety	.81**	1	
Stress	.78**	.85**	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

The correlations between depression-anxiety ( $r=.81$ ;  $p<.01$ ), anxiety-stress ( $r=.85$ ;  $p<.01$ ) and depression-stress ( $r=.78$ ;  $p<.01$ ) were significant.

Table 4 Relationships between Depression-Anxiety- Stress and students' socio- demographic characteristics

Variables	Depression	Anxiety	Stress
	Mean $\pm$ SD	Mean $\pm$ SD	Mean $\pm$ SD
Gender			
Female	11.38 $\pm$ 8.88	11.30 $\pm$ 8.21	16.50 $\pm$ 8.82
Male	14.53 $\pm$ 10.55	13.06 $\pm$ 9.79	18.08 $\pm$ 10.54
	t=-1.960	t=-1.856	t=-0.986
	p=0.052	p=0.067	p=0.326

Grade			
1. grade	10.47±9.41	10.61±7.95	14.11±8.51
2. grade	10.63±7.66	9.73±6.76	15.71±8.55
3. grade	12.82±9.64	11.69±9.63	16.08±8.83
4. grade	16.14±10.74	15.86±9.66	22.54±9.99
	F=2.994	F=3.825	F=6.437
	p=0.033	p=0.011	p=0.000
	4>1	4>1; 4>2	4>1; 4>2; 4>3
Economic status			
Good	11.09±9.54	10.58±9.40	15.89±10.11
Moderate	12.43±9.20	12.11±8.36	17.22±8.95
Bad	18.67±10.80	16.17±8.31	20.75±9.74
	F=3.151	F=2.062	F=1.345
	p=0.046	p=0.131	p=0.264
	1<3		
Currently living with			
Family	13.51±9.01	11.95±7.67	18.56±9.13
Friends	13.00±9.99	12.46±9.42	17.18±10.12
Alone	10.17±9.08	10.64±9.38	15.69±9.24
Other	12.85±10.30	12.50±8.74	16.12±9.00
	F=0.928	F=0.351	F=0.697
	p=0.429	p=0.788	p=0.555
Educational Satisfaction			
Yes	9.59±7.30	10.01±7.21	15.35±8.26
No	18.34±11.46	15.69±10.56	20.13±11.03
Undecided	15.07±10.27	13.73±9.74	18.97±10.15
	F=13.130	F=6.163	F=3.963
	p=0.000	p=0.003	p=0.021
	1<2; 1<3	1<2	1<2

There was no statistically significant relationship between gender and depression, anxiety or stress. The depression, anxiety and stress levels of 4 th grade students were found to be higher than others. Students with bad economic status had higher depression levels than those with moderate or good economic status. No statistically significant relationships were found between depression, anxiety or stress and current living place. Students who were satisfied with their education showed lower levels of depression anxiety or stress than those who were not satisfied.

#### 4. Conclusion and Discussion

The mean depression, anxiety and stress levels of music education students were found as 12.24; 11.67 and 16.86 respectively. According to the classification which has been organized by the developers of the DASS-42 instrument (Lovibond & Lovibond, 1995) music education students had mild depression, moderate anxiety and mild stress levels. In their study Spahn, Strukely & Lehman (2004) found that music students depression and anxiety scores were higher than those of the medical and sports students. A study among Turkish students found no significant difference in terms of depression and anxiety symptoms among music and other students (Karaoglu & Karaoglu, 2009). According to the results of a previous study at the same university, depression and stress levels of the students were found similar to the current study whereas anxiety levels were found lower (Bayram & Bilgel, 2008). In this study no gender differences were showed in terms of depression, anxiety and stress whereas a previous study among undergraduates from different faculties of the same university revealed that gender was correlated weakly to anxiety and stress and female students' mean anxiety and stress scores were significantly higher compared to male students' (Bayram & Bilgel, 2008). Studies on samples of Turkish students using different instruments rather than DASS-42 found either higher depression rates among female students or no gender differences (Ozdemir & Rezaki, 2007; Bostanci et al., 2005).

This study showed elevated scores for depression, anxiety or stress among 4 th grade students. Similar results were obtained from previous Turkish studies (Aktekin et al., 2001; Bostanci et al., 2005). On the other side in the literature, many studies point to the elevated risk of depression, anxiety and stress among first-year undergraduates

(Dyson & Renk, 2006; Nerdrum et al., 2006; Wong et al., 2006). The reason for the higher levels of depression, anxiety or stress among last year undergraduate students could be the uncertain future and career concerns.

Students with poor economic conditions had higher depression scores than students from families with good economic conditions. This result was in line with the previous study of Bayram & Bilgel (2008).

It is known that students who are satisfied with their education have higher achievement levels than those who are not satisfied and higher achieving students had lower levels of depression, anxiety or stress (Md. Aris Safree Md Yasin & Dzulkifli, 2011). In this study students who were satisfied with their education had lower levels of depression, anxiety and stress than those who were not satisfied. This finding may be occurred as a result of higher achievement among students who are satisfied from their education although in this study achievement levels' of the students were not evaluated.

As a conclusion it can be said that mild levels of depression and stress are common among music education undergraduates whereas anxiety levels are at moderate levels. In terms of depression and stress no significant differences were found compared to the whole Turkish undergraduate student population although in terms of anxiety, music students found to be more anxious than other undergraduates.

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