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Relationships between psychological well-being, happiness, and educational satisfaction in a group of university music students

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Few studies have been conducted on music students' psychological well-being and happiness. The purpose was to assess the psychological well-being, happiness and educational satisfaction among a group of university music students. Students participated voluntarily and filled out a socio-demographic questionnaire, Depression Anxiety Stress Scale (DASS-21), Oxford Happiness Questionnaire (OHQ) and a questionnaire for educational satisfaction. Participation rate was 92.0%. Participants had mild depression, moderate anxiety and mild stress. Educational satisfaction was not related to students' academic achievement. First and second year students and female participants were more satisfied with their education. Significant relationships were found between psychological well-being, happiness and educational satisfaction. Depression, stress and anxiety had a negative impact on happiness. Putting curricula of health promotion and prevention into practice at music departments could be a good starting point to diminish both physical and psychological injuries among students and artists.

Key words: Music students, happiness, psychological well-being, educational satisfaction.

INTRODUCTION

According to the generally accepted public opinion studying and performing music is associated with pleasure, relaxation and entertainment. Controversially to this opinion, results of various worldwide epidemiological studies show that 50-60% of music students are affected by health related burdens which are arisen because of their profession (Kaspersen and Gotestam, 2002; Williamon and Thompson, 2006; Zander et al., 2010; Hildebrandt et al., 2012; Wristen and Fountain, 2013; Panebianco-Warrens et al., 2014). Music students began to work from a very early age within an extremely demanding environment not only in physical but also in psychological terms. Their educational environment can be considered as a stressful place because of high competition, isolation, failure to achieve career goals, authoritarian teaching style, and intolerance against errors caused by stress or anxiety and financial uncertainty. Recently, a clear association between psychosocial stress and risk for depression has been shown by prospective studies from different countries and different occupations (Siegrist, 2008). In their longitudinal and observational study, Zander et al. (2010) revealed

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that music students had worse ratings in psychological and physical health in comparison with medical students of the same age. The rise of psychological disturbances among the music students during the first two years was significant (Zander et al., 2010). Another study among 118 music students found that the levels of anxiety did not differ before and after the first year of education but the levels of depression represented an elevating tendency at the end of the first year (Hildebrandt et al., 2012). A recent study from South Africa demonstrated that female music students had lower scores for stress management than male students which are possibly indicating a higher level of experienced anxiety among female music students (Panebianco-Warrens et al., 2014). Some studies have assessed burnout and stress of undergraduate music students and found high levels of burnout and stress (Bernhard, 2005; Sternbach, 2008; Orzel, 2010).

Happiness can be described as often being in a state of joy, or as a state of satisfaction and in previous studies, many variables have been shown to be related to happiness (Seligman, 2008). Furthermore there are an extend literature which revealed that music practice and participation can positively contribute to one living a more optimally flourishing life with greater psychological well-being and happiness (Van Goethem and Sloboda, 2011; DeMarco et al., 2012; Sergeant and Mongrain, 2012; Hwang and Oh, 2013; Koenig et al., 2013). Therefore, it can be suggested that music students may have been happier compared to other undergraduates. Happiness ranks high in the value hierarchy of students all over the world (Diener, 2004). Our current knowledge on happiness is limited and most of the available research findings on happiness have been gathered into the World Database of Happiness (Veenhoven 2012). Cross-sectional studies show modest differences in average happiness across vocations. Furthermore, managers and professionals tend to be the happiest, possibly because of the autonomy allowed in these occupations and artists appear to be less happy than average, but due to a lack of longitudinal data we do not know whether this is a causal effect of the profession (Veenhoven, 2015).

In Turkey, epidemiological data about psychological morbidity among undergraduate students have not been researched in depth, although some recent studies have revealed high rates of depression, anxiety and stress and even suicidal tendencies among university students (Bostanci et al., 2005; Bayram and Bilgel, 2008; Arslan et al., 2009). Karaoglu and Karaoglu (2009) found high rates of depression and anxiety among music students but no differences compared to other undergraduates while another study found the mean depression, anxiety and stress scores to be significantly higher among music education students compared to medicine students (Demirbatir et al., 2012). A recent study found the mean satisfaction with life scores of music students similar to the other students whereas happiness levels were found to be lower (Demirbatir et al., 2013).

Examination of the relationships between psychological well-being, happiness and educational satisfaction among a group of university music students may offer a more complete and bio-psycho-social view of the problems reported. Understanding these problems offers the opportunity to help physicians and music educators in developing effective strategies to address these problems among musicians while they are still in their formation years before they begin their professional music careers.

METHODS

Place, participants, and procedure

This study was performed at Department of Music Education of Uludag University in Bursa Turkey. Department of Music Education was established in 1982 and is the fourth well-established educational institution of degree programs for certified music teacher in Turkey. Duration of the music education program in Turkey is 4 years (8 semesters). The aims of the Department of Music Education are: graduating distinguished candidate teachers who are qualified in music education knowledge, well-educated in student development and learning, competent in music teaching methods and techniques, equipped with the skills of planning and application of education activities. Furthermore to perform and create music, contribute to the development of music culture at national and universal level, think analytically and critically are expected from the candidate music teachers. In this context, as part of the music education bachelor degree, concerts, scientific meetings, workshops are organized. Candidate teachers are asked to participate in these activities individually, in small groups and communities. This development is strengthened and reinforced by means of communicating with other universities in and abroad.

Participants were enrolled as students in the Uludag University (Bursa-Turkey) Faculty of Education Department of Music Education. Students consented to participate in the study in accordance with institutional review board procedures. All participants were recruited directly in their respective classrooms during the second week of the academic year (2014-2015) and students willing to participate filled out the questionnaires. Questionnaires were distributed and collected back in envelopes without any identification marks and filled out anonymously. A total of 147 students participated in the study, corresponding to 92.0% of the 160 registered students for the academic year 2014-2015. Participants' gender distribution was similar (female 59.2%; male 40.8%) and mean age was 20.99 yrs (SD 1.98). The majority (88.4%) were instrumentalists with the remaining (11.6%) as vocalists. The most preferred musical instrument was violin (29.9%) followed by cello (12.9%) and flute (10.2%). Distribution of the participants according to their classes was similar and 25.0% were in their first year of university study following high school. According to the students the economic status of their families was as follows: moderate 75.5%, good 18.4% and poor 6.1%. According to the educational status of their parents more than half of the students' mothers (57.1%) and nearly 3/4 of the students' fathers (73.4%) were high school or more educated. More than half of the students' mothers (55.8%) were housewives whereas 29.3% of fathers were retired. Other occupations among fathers were distributed as follows: 19.7% artisan, 16.3% blue collar worker, 12.9% professional occupations, 10.9% officer, 9.5% farmer and 1.4% unemployed. About 90.5% of the participants' parents were alive and 15.0%

Table 1. Socio-demographic characteristics of the study group.

	N (%)
Age	
18-20	62 (42.2)
21-23	73 (49.7)
≥24	12 (8.1)
Grade	
1	37 (25.2)
2	38 (25.9)
3	35 (23.7)
4	37 (25.2)
Gender	
Female	87 (59.2)
Male	60 (40.8)
Mother's education	
Primary School	39 (26.5)
Secondary School	24 (16.3)
High School	49 (33.3)
University	35 (23.8)
Father's education	
Primary School	16 (10.9)
Secondary School	23 (15.7)
High School	54 (36.7)
University	54 (36.7)
Mother's occupation	
Housewife	82 (55.8)
Laborer	18 (12.2)
Merchant, artisan	9 (6.2)
Officer	8 (5.4)
Professional	17 (11.6)
Retired	13 (8.8)
Father's occupation	
Unemployed	2 (1.4)
Laborer	24 (16.3)
Merchant, artisan	29 (19.7)
Farmer	14 (9.5)
Officer	16 (10.9)
Professional	19 (12.9)
Retired	43 (29.3)
Economic status	
Good	27 (18.4)
Moderate	111 (75.5)
Poor	9 (6.1)

of the participants' parents were divorced. Some 25.2% of the students were living in villages or small towns before the beginning of their university education. Socio-demographic characteristics of the study group are shown in Table 1.

Nearly all of the participants (96.6%) mentioned that they have preferred to study music education by their own willing and 92.5% reported that they were supported by their families in terms of their educational preference. The grade point average (GPA) of the participants was 2.74 (range 1.52-3.72 and SD 0.45).

Measurement instruments

Depression Anxiety Stress Scale (DASS-21)

Depression, anxiety and stress were measured by using of the 21 item version (short version) of Depression Anxiety and Stress Scale (DASS) developed by Lovibond and Lovibond (1995 a; 1995 b) and was constructed and validated for Turkish language (Bayram and Bilgel, 2008; Bilgel and Bayram, 2010). The DASS is a self-administered instrument with well-established psychometric properties in clinical and non-clinical samples, and has been shown to differentiate between the three states of depression, anxiety and stress. The depression scale assesses dysphoria, hopelessness, devaluation of life, self deprecation, lack of interest or involvement, anhedonia and inertia. The anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety and subjective experience on anxious effects. The stress scale is sensitive to levels of chronic non-specific arousal. The scale assesses difficulty relaxing, nervous arousal and being easily upset or agitated, irritability or over-reaction and impatience. This instrument measures current symptoms of depression, anxiety, and stress. Each of the three scales consists of 7 items answered using a 0 - 3 scale, where 0 = did not apply to me at all, and 3 = applied to me very much or most of the time (range of possible scores for each scale is 0 - 21). The total score for each scale is obtained by summing up the scores for the corresponding scale items and multiplying it by two. Scores considered in the normal range are 0 - 9 for depression, 0 - 7 for anxiety, and 0 - 14 for stress. Scores above these ranges indicate the degree of the problem from mild to extreme. The reliability coefficients (Cronbach's α) of DASS-21 in this study were found as follows: depression 0.88; anxiety 0.84 and stress 0.81 which means that this instrument is reliable.

Oxford Happiness Questionnaire (OHQ)

It developed by Hills and Argyle (2002) and was constructed for the Turkish language by Seker and Gencdogan (2006). The Turkish version showed good reliability and validity (Dogan and Cotok, 2011). This scale consists of 29 items answered using a 1 - 6 scale, where 1 = did not apply to me at all, and 6 = applied to me very much or most of the time (range of possible scores is 29 - 174). Higher scores indicate higher levels of happiness. The reliability coefficient (Cronbach's α) of OHQ in this study was 0.89.

Questionnaire for educational satisfaction

Schools contribute to students' positive adjustment when they function as psychologically healthy environments for development. One of the important markers of positive school adjustment is educational satisfaction. Educational satisfaction refers to a student's subjective, cognitive evaluation of school life using her or his own standards related to several specific school life domains.

Educational satisfaction as a major component of school related subjective well-being and can be a causal factor for some important outcomes. Although some researchers regarded school related subjective well-being as an outcome variable, recent empirical studies have shown that school-related subjective well-being can be an antecedent as well (Tian et al., 2014). Educational satisfaction questionnaire used in the current study was developed by the author some years ago. For the development of this questionnaire, the opinions regarding educational satisfaction were asked to the students as follows: "What will make you satisfy with your education? Please write all of the statements that you feel they will give you the sense of satisfaction from your education". About 150 students who were studying music education listed their statements. These statements were assessed by the author and the most stated 20 items were chosen in order to establish a questionnaire for educational satisfaction. This questionnaire consists of 20 items answered using a 1-5 scale, where 1= did not apply to me at all, and 5= applied to me very much. In order to obtain a satisfaction with education score, all the item scores are summed up. Range of possible scores is 20-100. Higher scores indicate higher levels of satisfaction with education. The reliability coefficient (Cronbach's α) of Educational Satisfaction Questionnaire in this study was 0.87. The items of this questionnaire are mentioned below:

1. I preferred music education department by myself
2. Every morning I come to school with enthusiasm
3. I am satisfied with my education
4. I think I have enough time to practice after my classroom lessons
5. I am satisfied with my class- hours
6. I am satisfied with my curriculum
7. I am satisfied with the physical environment of my school
8. I think that my education is improving me
9. I think that my education is preparing me for my future career
10. I am satisfied with my educators
11. I am satisfied with the content of the cultural and art activities of this department
12. I am satisfied with the amount of the cultural and art activities of this department
13. I am satisfied with the social environment of this department
14. I am satisfied with the social support and solidarity among the members and students of this department
15. I think the educators of this department are well equipped
16. I think this department is well managed
17. I think the overall climate of this university is good
18. I think this institution is giving value to students
19. If I could turn back, I would choose again the same university and department
20. I would recommend future candidates to choose this department

Analyses

The data were analyzed using the IBM SPSS Statistics® v22 licensed institutionally.

Q-Q plots showed normal distributions for Oxford Happiness and Educational Satisfaction Scores; therefore parametric tests were used for statistical analyses. Q-Q plots showed non-normal distributions for depression, anxiety and stress scores and therefore the assessment regarding the relationship between psychological well-being and some socio-demographic variables was performed by binary logistic regression analyses; and students according to their DASS-21 scores with normal levels of depression, anxiety and stress were coded as "0" and those with mild, moderate, severe or extremely severe levels of depression, anxiety and stress as "1".

RESULTS

For the whole group, the frequency of depression, anxiety, and stress were 51.7, 61.9 and 48.3% respectively. The overall depression, anxiety and stress scores (Mean±SD) were 11.58±9.44; 11.93±9.26 and 15.56±8.62 respectively. These scores revealed that the study group had mild depression, moderate anxiety and mild stress. Table 2 shows the distribution of the participants' depression anxiety and stress levels according to gender and grades.

The relationships between some socio-demographic and educational characteristics of students and psychological well-being are assessed through binary logistic regression analyses. The results are shown in Table 3.

In terms of depression, no significant differences were found between freshmen and sophomore and junior and senior students. Gender, age, education levels of students' parents, economic status of students' families, occupation of students' mothers and having parents who are alive were not related to depression. GPA was not related to depression but a significant relationship was found between educational satisfaction and depression. Depression was more frequently reported by students with lower educational satisfaction scores.

In terms of anxiety, none of the possible predictors were found related to anxiety. In terms of stress, two possible predictors were found to be related to stress and these were students' grades and educational satisfaction. Students in the first and second year of their study were 3.7 times more under stress than students in the third and fourth years. Students with lower educational satisfaction were more stressed than those with higher satisfaction.

The descriptive statistics for the educational satisfaction score were as follows: Mean= 71.07; SD= 11.40; 95% CI (69.22- 72.93), range= 45-100. The mean educational satisfaction scores were significantly different among male and female students whereas female students got higher scores than males. Students with depression and stress got significantly lower scores for educational satisfaction than students without depression and anxiety. Significant differences among the mean educational satisfaction scores were found among students in different grades whereas the mean educational score was diminishing with the raising class. There was no significant difference in terms of educational satisfaction among students with different GPA's.

The descriptive statistics for the Oxford Happiness Score were as follows: Mean=115.81; SD= 20.49; 95% CI (112.47-119.15), range 60-169. The mean Oxford happiness scores were not significantly different among

Table 2. Grades and gender distribution of students by depression, anxiety and stress levels.

	Depression levels				
Grade	**Normal**	**Mild**	**Moderate**	**Extreme**	**Very extreme**
1	16 (43.2%)	4 (10.8%)	12 (32.4%)	2 (5.4%)	3(8.1%)
2	23 (60.5%)	9 (23.7%)	2 (5.3%)	3 (7.9%)	1 (2.6%)
3	12 (34.3%)	5 (14.3%)	11(31.4%)	3 (8.6%)	4 (11.4%)
4	20 (54.1%)	8 (21.6%)	3 (8.1%)	2 (5.4%)	4 (10.8%)
Gender					
Male	30 (50.0%)	12 (20.0%)	8 (13.3%)	4 (6.7%)	6 (6.9%)
Female	41 (47.1%)	14 (16.1%)	20 (23.0%)	6 (6.9%)	6 (6.9%)
	ANXIETY LEVELS				
Grade	**Normal**	**Mild**	**Moderate**	**Extreme**	**Very Extreme**
1	12 (32.4%)	6 (16.2%)	14 (37.8%)	2 (5.4%)	3 (8.1%)
2	18 (47.4%)	1 (2.6%)	8 (21.1%)	4 (10.5%)	7 (18.4%)
3	10 (28.6%)	1 (2.9%)	11 (31.4%)	2 (5.7%)	11 (31.4%)
4	16 (43.2%)	4 (10.8%)	2 (5.4%)	4 (10.8%)	11 (29.7%)
Gender					
Male	25 (41.7%)	6 (10.0%)	14 (23.3%)	2 (3.3%)	13 (21.7%)
Female	31 (35.6%)	6 (6.9%)	21 (24.1%)	10 (11.5%)	19 (21.8%)
	STRESS LEVELS				
Grade	**Normal**	**Mild**	**Moderate**	**Extreme**	**Very Extreme**
1	17 (45.9%)	9 (24.3%)	4 (10.8%)	7 (18.9%)	-
2	20 (52.6%)	5 (13.2%)	9 (23.7%)	3 (7.9%)	1 (2.6%)
3	18 (51.4%)	6 (17.1%)	6 (17.1%)	3 (8.6%)	2 (5.7%)
4	21 (56.8%)	4 (10.8%)	7 (18.9%)	3 (8.1%)	2 (5.4%)
Gender					
Male	33 (55.0%)	11 (18.3%)	11 (18.3%)	4 (6.7%)	1 (1.7%)
Female	43 (49.4%)	13 (14.9%)	15 (17.2%)	12 (13.8%)	4 (4.6%)

Table 3. Binary logistic regression analyses for some possible predictors of psychological well-being.

	Depression			**Anxiety**			**Stress**		
Predictors	**p**	**Exp (B)**	**95% CI**	**p**	**Exp (B)**	**95% CI**	**p**	**Exp (B)**	**95% CI**
Grade (1st & 2nd year)	0.842	1.09	0.47-2.50	0.910	1.05	0.46-2.39	**0.007**	3.77	1.44-9.81
Gender (female)	0.365	1.41	0.67-2.36	0.194	1.64	0.78-3.44	0.098	1.98	0.88-4.42
Age (continuous)	0.945	0.99	0.81-1.22	0.769	0.97	0.79-1.19	0.346	1.11	0.89-1.37
Mother's Education (< high school)	0.140	1.94	0.80-4.67	0.928	1.04	0.44-2.47	0.965	1.02	0.41-2.51
Father's Education (< high school)	0.126	0.49	0.19-1.22	0.672	1.22	0.49-2.99	0.551	0.75	0.29-1.94
Economic Status	0.389			0.228			0.188		
Good	0.186	0.28	0.04-1.83	0.940	0.14	0.01-1.39	0.672	0.68	0.11-4.03
Moderate	0.182	0.31	0.06-1.73	0.166	0.22	0.02-1.89	0.182	0.34	0.07-1.66
Mother's occupation (housewife)	0.244	0.62	0.28-1.38	0.82	1.09	0.49-2.41	0.790	0.89	0.39-2.02
Parents are living (yes)	0.867	0.90	0.27-3.01	0.89	1.08	0.32-3.64	0.430	0.59	0.17-2.14
GPA (continuous)	0.289	0.65	0.29-1.43	0.839	1.08	0.49-2.38	0.099	0.49	0.21-1.14
ESS (continuous)	**0.023**	0.96	0.92-0.99	0.271	0.98	0.95-1.02	**0.000**	0.92	0.88-0.96

GPA= Grand Point Average; ESS= Educational Satisfaction Score; Reference Categories: Grade: 3rd and 4th year students; Gender: Male; Mother's Education: ≥ High School; Father's Education: ≥ High School; Economic Status: Poor; Mother's Occupation: Other than housewife; Parents alive.

male and female students whereas significant differences were found among students with and without depression, anxiety and stress. No significant differences were found among students in different grades. Students with higher GPA's had significantly higher happiness scores than those with lower GPA's.

Table 4 shows the relationships between happiness and educational satisfaction by gender, grade, GPA and, psychological well-being.

DISCUSSION

The aim of this study was to assess the relationships between music students' psychological well-being, happiness and educational satisfaction. For this purpose different parameters were measured. In terms of psychological well-being depression, anxiety and stress among music students were evaluated. According to the results, the frequency of depression, anxiety and stress found to be higher among music students compared to the other student populations. High rates of depression, anxiety and stress among students all over the world in higher education has been revealed in many of the previous studies (Voelker, 2003; Adewuya et al., 2006; Nerdrum et al., 2006; Ovuga et al., 2006; Wong et al., 2006). Undergraduate students need to cope with psychological and psychosocial changes that are connected to the development of an autonomous personal life and additionally they have to cope with the academic and social demands that they encounter in university studies and in their preparation for professional careers. There are few studies among music students in terms of psychological well-being. Spahn et al. (2004) found depression and anxiety rates among music students higher than those of other undergraduates. Hildebrandt et al. (2012) found higher rates of fatigue, depression and stage fright during the first year of music study. Some studies assessed burnout and stress of undergraduate music students and found high levels of burnout and stress (Bernhard, 2005; Orzel, 2010; Sternbach, 2008). Recent studies among music students in Turkey which are mentioned in the introduction section of this paper revealed also high rates of depression and anxiety. The causes of depression, anxiety and stress among music students should need further evaluation but some suggestions could be as follows: While music education students have same class loads and the same social stresses as other students, they also have their music activities. The hours they spend practicing, taking lessons, perhaps taking part in additional select ensembles, all of this is taking time and left little or no time for relaxation, entertainment and sports. Music students share all the common stressors of school and everyday life that affect everyone and additional they are faced with the performance anxiety and stress. Even though the student years are a time for developing social skills, it remains a fact of life that music students improve by practicing in isolation away from others. Excessive self-criticism in practicing could be a predisposing factor for depression and anxiety and students who don't look like they are having fun in practicing, who seem to display excessive seriousness in the way they approach music may develop psychiatric disorders. In terms of relationships between psychological well-being, educational satisfaction and happiness some significant associations were found in this study. Depression and stress were associated with educational satisfaction whereas anxiety was not. This finding suggests that the causes of anxiety are not purely educational but mixed with other causes such as overall daily life, worry about the future, concerns about employment etc. They could be more important in developing anxiety and this suggestion needs further evaluation. The association between depression and educational resources has been shown in the literature. A recent study among Swiss male citizens aged 18 to 25 years found that depression was associated with a substantial loss of satisfaction in schools or at work (Barth et al., 2014). It has been shown that stressful school events emerged as statistically significant predictors for the onset of depression and morbid anxiety among adolescents with depression can be linked to a recurrent course of major depressive disorder (Fiis et al., 2002). Studies among adolescents revealed that increasing school satisfaction was associated with increasing global satisfaction, positive attitude toward life and lack of depressive mood (Rask et al., 2002).

Studies among young people found that life satisfaction and happiness are negatively associated with psychopathological problems such as depression and stress (Gilman et al. 2006; Proctor et al., 2010). Similar results were obtained from this study. Students without depression, anxiety and stress got higher scores of happiness than those with depression, anxiety and stress. A recent study (Demirbatir et al., 2013) among music students in Turkey found a significant negative relationship between depression and happiness and the findings of this study is in line with the current study. The overall Oxford Happiness Score (Mean±SD) in the current study was found as 115.81±20.49 whereas another study among university students in Turkey revealed a higher score (Dogan and Sapmaz, 2012). This difference may be due to the higher levels of depression among the current study group.

Another result of this study regarding happiness of music students was the positive relationship between students' GPA's and happiness levels. Although, some studies in the literature found that happiness was not related to academic performance (Lyubomirsky et al., 2005; Okun et al., 2009). Whereas some found that students reporting high global life satisfaction also reported significantly higher scores on all measures of

Table 4. Educational satisfaction and oxford happiness scores by gender, grade and psychological Well-being.

	Educational satisfaction		
Gender	**Mean ± SD**	**Statistical test**	**Significance**
Male	68.70±11.40	t test = 2.122	p=0.036
Female	72.72±11.17		
Grade			
1	76.08±10.27		
2	75.16±8.99		
3	69.80±11.29	ANOVA = 12.650	p=0.001
4	63.08±10.39		
GPA			
1.50-2.49	69.33±11.03		
2.50-2.99	70.76±11.10	ANOVA = 1.153	N.S.
3.00-4.00	72.91±12.02		
Psychological well-being			
Depression (-)	73.46±11.99	t test = 2.500	p=0.014
Depression (+)	68.84±10.51		
Anxiety (-)	72.61±10.90	t test = 1.281	N.S.
Anxiety (+)	70.13±11.66		
Stress (-)	74.14±10.48	t test = 3.505	p=0.001
Stress (+)	67.79±11.51		
	Happiness		
Gender	**Mean±SD**	**Statistical test**	**Significance**
Male	112.83±19.94	t test =1.468	N.S.
Female	117.86±20.73		
GRADE			
1	115.70±19.98		
2	118.16±19.56		
3	111.74±21.21	ANOVA = 0.691	N.S.
4	115.81±20.49		
GPA			
1.50-2.49	108.17±16.48		
2.50-2.99	115.75±18.77	ANOVA = 5.840	p=0.004
3.00-4.00	122.43±23.36		
PSychological well-being			
Depression (-)	127.00±17.86	t test =7.518	p=0.001
Depression (+)	105.35±17.04		
Anxiety (-)	124.48±18.25	t test =4.254	p=0.001
Anxiety (+)	110.47±20.06		
Stress (-)	123.85±18.65	t test =5.375	p=0.001
Stress (+)	107.20±18.92		

academic functioning (Gilman et al. 2006).

Some explanations for this association among GPA's and happiness may be as follows:

Happiness could be related positively to motivational variables that promote academic performance and happy students may have higher commitment to their educational institution which makes them strongly committed to obtain an educational degree and to succeed in courses.

Students with good academic performance may do so in part because they are happy, and performing well may make students happier. However, these explanations should be supported by further studies.

The results of the current study suggest that music education students are at risk of depression, anxiety and stress and their happiness levels are lower than the other undergraduate students in Turkey. These results should be further investigated through qualitative studies performed by interviews and focus group discussions which also take the personality characteristics of students into consideration.

This study showed higher levels of stress among 1st and 2nd year students and this problem needs to be addressed immediately. During the first year students confront high time demands arising from their dedication to their principal music instrument or voice and simultaneously they must commit to a large of obligatory subjects. A better organization of work demands could diminish the stressful events that students faced with in this important period. Courses presenting working strategies and relaxation techniques, memory research, time management and coping with stress could be useful in minimizing anxiety and stress. Cognitive behavioral therapy, psychoeducation and interpersonal therapy could be helpful in reducing depressive symptoms (Calear et al., 2010).

Whereas health promotion courses are being implemented, evaluated and adapted as part of existing curricula in various countries across the world (Panebianco-Warrens et al., 2014), in Turkey there are no health promotion or injury prevention programs presented at any of the tertiary institutions offering music as a major. Growing awareness of health issues is a fairly recent development among musicians and music teachers in Turkey. Establishing a new branch of medicine named "The Performing Arts Medicine" could be helpful in order to diminish both physical and psychological injuries among performing artists, students and teachers. Institutions should assist students to acquire knowledge from qualified professionals and authoritative medical sources regarding the maintenance of professional health and prevention of injuries or disorders. Putting curricula of health promotion into practice at music departments of universities could be a good starting point.

Study limitations

Although the study yielded a number of important results, limitations are to be noted. First, the study was cross-sectional, and studies of longitudinal nature are necessary to determine the direction of causality. Second, the data were based on self-reports, which may yield method variance concerns. Third, some participants may have been less than honest in their responses. Finally, the results of this study were based on students that were primarily composed of students of one university in Turkey. Additional studies with students from different universities in Turkey are necessary to determine the generalizability of the findings.

Conflict of Interests

The authors have not declared any conflict of interests.

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