THE VALIDITY AND RELIABILITY OF THE MUSICAL PERFORMANCE ANXIETY SCALE

Sadullah Serkan Seker, PhD

Adnan Menderes University, Aydin

Abstract

Musical performance anxiety (MPA) is a specific sub-dimension of social phobia. In the music teacher training process, MPA should be analyzed and solved. The purpose of this study is to develop a valid and reliable measuring tool in order to assess MPA. İn the development process of this study, literature was reviewed and an item pool was created for content validity. A pilot study was done after which validity and reliability studies were carried out. For construct validity, explanatory factor analysis was performed (*n*=574), and three factors were determined. A confirmatory factor analysis was done (*n*=285) to assess the fitness of the factors. The results of the CFA (*n*= 285) were x^2=225.45, df=132, *p*< 0.001, χ^2/df = 1.70, RMSEA = 0.050, and cronbach alpha coefficient is 0.83 for the whole scale. Test–retest (*n*=60) and convergent validity were performed. In the light of these findings, it was concluded that a valid and reliable scale was developed.

Keywords: Musical Performance Anxiety, Music Education

Introduction

Anxiety can be defined as a state of fear which occurs under a threatening or stressful situation. Anxiety is a state that comprises of the body and mind's perception of real or imaginary threats or dangerous situations (France & Robson, 1997). Eysenck, Santos, Derakshan, and Calvo

(2007) define anxiety as an undesirable motivational situation. They emphasize that it is a state where individuals can conceptualize anxiety when they are unable to show rıght behavioral pattern to remove or change a threatening case or object. Barlow defines anxiety as a cognitive-affective construct which is unique and instigates competition amongst ourselves in our defensive motivational system. He emphasizes that there are some threats or cases at the center of this system which are uncontrollable and potentially negative (Barbeau, 2011). Thus, the reason for anxiety is the unfamiliarity of a situation, the expectation of a negative outcome, internal contradictions, and uncertainty (Cüceloğlu, 2000).

Anxiety can be examined under two types which are state and trait. State anxiety first emerged in Cattel and Scherer's factor analysis (1958, 1961) and is defined as a temporary affective state which is characterized by subjective stress and fear. On the other hand, trait anxiety is defined as an intensive form of state anxiety which relatively shows an individual's tendency towards anxiety (Büyüköztürk, 1997).

Performance anxiety which is a type of social anxiety (Bogels et al., 2010) can be defined as cognitive activities that suddenly emerge in one's mind (thoughts and images) which is related to potential catastrophes that may occur. However, it is usually triggered by arousal and distress. This situation is actually caused by falling below one's cognitive and physical ability (Engelhard et al., 2012). Gorges and colleagues (2007), in their 142-person research that included professionals and students, found a high correlation between social anxiety and musical performance anxiety ($r=.50$, $p<0.001$). In their research, which explained that MPA is a situational part of social phobia, Cox and Kenardy (1993) emphasized that half of the study group was socio-phobic. Another definition of performance anxiety stated by Kenny (2006) is the general name of a set of disorders that affects one's ability to make efforts, like to perform sports and dances, or to give a speech in the presence of an audience. İn some researches, performance anxiety is referred to as stage fright. Consequently, they state that with the merger of fear and anxiety, stage fright becomes highly maladaptive. This situation forces many people to give up many activities they enjoy or they require in their career (Marye, 2011).

Performance anxiety is a general experience which is triggered by extreme mental and physical disturbance. It affects individuals involved in the performing arts like speakers, actors/actresses, musicians, and dancers.

This problem can be seen in different individuals at different levels, ranging from professionals to amateurs (Tokinan, 2013). Dinkgrafe and colleagues (2012) emphasized that especially in arts and sports, many well-known artists and athletes are exposed to performance anxiety. A well-known singer and actress, Barbara Streisand in her concert in 1963 forgot the lyrics of her song. It has been 27 years since this incidence, yet she has not gone to stage. Andrea Bocelli, Al Pacino, and Colin Firth are known for their performance anxiety experiences. Marye (2011) stated that teachers are also exposed to performance anxiety because they often interact with people in and out of the classroom. İn Turkey, music teachers are in the limelight. İn official ceremonies, music teachers are evaluated by the audience, other teachers, and senior officials.

Musical performance anxiety is a kind of anxiety disorder. It can be classified as social phobia in cases where the performer shows important corruption symptoms that match the DMS-IV's social phobia criteria (Kenny, 2006). İn a similar vein, Osborne and Franklin (2002) emphasized that the literature of social phobia defines musical performance anxiety as a specific type of social phobia. Social phobia is a fundamental determiner of performance anxiety in a solo performance setting. On the other hand, it is stated that in spite of the fact that there may be a link between performance anxiety and social phobia, the definition of performance anxiety does not fit in with the DMS-IV based definition of social phobia. Actually, in recent years, the revised version of DMS-IV and DMS-IV TR (text revision) show that the term, performance anxiety, is poorly defined. In the "The Different Diagnosis of Social Phobia" section of DMS - IV and DMS - IV TR, it is advisable that performance anxiety, stage fright, and the feeling of shyness, which occur in particular social conditions full of strangers, is common. Therefore, unless aforementioned, anxiety or avoidance causes disorders at the clinical level or causes distress and sorrow. Hence, a diagnosis of social phobia should not be confirmed (Barbeau, 2011).

When focusing on musical performance, literature researchers have tended to propound different theories for drawing a framework for explaining musical performance anxiety. LeBlanc (1994) posited a theory that emphasized variables which may affect one's musical performance anxiety level that plays an important role in his/her future performances. According to this theory, Le Blanc numerated these variables hierarchically. İn this order, Le Blanc indicated "the performance assessment" (an

assessment about the quality of a performance, which is given after the performance) as the most important variable. Furthermore, this variable may also affect the musical performance anxiety level. Secondly, Le Blanc indicated the current assessments of performance and later specified other variables as, “the act of performance,” “the level of psychological arousal,” “self-perception of performer” (perceived difficulty of music, the appropriateness of music, the amount of preparedness towards performance, self-perceptions of one’s own appearance, a feeling of exposure on the stage, the degree of importance that one give his/her performance, and the perception of the audience’s support), “performance environment” (the existence of microphones or other recording devices on the stage, procedures, the physical condition of the stage, the kind of audience, memory requirements, distractions, and performance time), “preparedness,” “one’s emotional and physical condition,” “one’s level of qualification to play a musical instrument, “personal characteristics,” and “learning history” (age, musical ability, performance experiences, qualities in the past, and one’s daily life style). Another research which contributes to the body of literature on MPA is Kenny’s musical performance inventory “KMPAI” (Kenny & Osborne, 2006). This inventory, which was translated into Turkish by Tokinan (2013), was developed for testing Barlow’s emotion-based theory. İn 2009, the inventory was revised by the researcher. The number of items increased from 26 to 40. Therefore, the exploratory factor analysis done showed 12 factors. Another theory about musical performance anxiety was suggested by Papageorgi, Hallam, and Welch (2007). Papageorgi and his colleagues classified their theory into three sub categories which are pre-performance conditions, performance conditions, and post-performance conditions. All categories are subdivided into different sections.

İn musical performance anxiety literature, there are many variables which may affect musical performance anxiety levels. These variables include: age group (child—adolescent—adult), gender, whether performance is in front of an audience or not, solo or group performance, previous performance experiences, education, past learning experiences, self-efficacy level, meta-cognitional abilities, task efficacy and perfectionism, and a lot more variables.

Ryan (2009) in his research, examined choral singers’ experiences with the conductor, performance history, problem solving abilities, and their relationships with MPA. Ryan found that musical performance anxiety is

widely experienced among choral singers. Solo performances trigger MPA rather than group performances. Ryan emphasized that conductors are the primary factors that influence choral singers' performance anxiety levels. He also found that orchestral performances have a higher anxiety level than choral performances. Thomas and Nettelbeck (2014) in their researches, examined secondary school students' (n = 90) musical anxiety level who had taken elective music lessons. According to the results, girls showed more anxiety than boys. İn musical performance anxiety literatures, many researches that support these findings have been found (Abel & Larkin, 1990; Abrams & Manstead, 1981). Another research finding is that there is a significant correlation between neuroticism and MPA among adolescents. Also, there is a negative but significant correlation between extraversion and MPA.

Brotons (1994) examined the difference between performing in front of a jury and not performing in front of a jury. Brotons conducted a preliminary interview with 64 university students in different musical specialties. He later administered a pre-test which included measuring their heart rates and perceived MPA levels and observing their body languages during performance. Brotons emphasized that their heart rates were higher in front of jury than it was without a jury. İn MPA literature, many researches can be found (LeBlanc, Jin, Obert, & Siivola, 1997; Hamann, 1982; Cox & Kenardy, 1993).

Osborne and Kenny stated that in order to progress in the MPA field, valid and reliable measuring tools are needed. Thus in English literature, there are 20 MPA self-report scales developed for such researches. This information shows the importance attributed to MPA. İn Turkish literature, there are only two Turkish scales. One of them is the KMPAI which was translated into Turkish by Tokinan. İn the Turkish version of the scale, there are five factors which have a Cronbach alpha coefficient of 0.89. These factors are: perception of negative performance, psychological vulnerability and somatic form of anxiety, personal control, and physical vulnerability. İn this research, the researcher makes a remarkable point. In the original version of the inventory, anxiety and parental empathy can be transferred from one generation to another generation. However, in the Turkish version, this simply does not exist. This situation evidences shows the fact that the factors which affect MPA is changeable by culture. In the same vein, the items "I find it difficult to depend on others" and "I find it easy to trust

others" does not apply in the Turkish version. These findings show that the relationship between anxiety and trust varies from culture to culture. These findings also show that there is a great need to develop the Turkish culture-specific musical performance anxiety scales.

The second MPA scale in Turkish literature was developed by Çırakoğlu and Şentürk named Performance Anxiety Scale for Music Students (PASMS). The study was conducted in three phases. In the first phase of the study, the factor structure of PASMS was explored and three components were found. Therefore, these components are fear of stage, avoidance, and symptoms. The internal consistency of the whole scale was found to be 0.95. The three components of PASMS gave a total variance of 59.78. In the second phase of the study, confirmatory factor analysis was used to asses the 27-item scale for construct validity. However, the scale did not achieve acceptable fit. 3 items were removed from the scale to obtain a 24-item scale. The final CFA results were χ^2 = 652.33, df= 239, p= 0.001, and RMSEA = 0.06.

İn music education, performance can be analyzed by induction. This means, to understand great performances (e.g. solo concerts or recitals), little performances should be investigated. For example, students playing in individual lessons, as part of an orchestral music or singing in chorus lesson in front of their friends and teacher, may experience new MPA or a triggering of preexisting MPA. This situation may harm students' future performances or cause avoidance from performing. Therefore, trainers should seriously investigate students' reasons for MPA. Furthermore, trainers should not harshly criticize students' performance, but encourage them for better future performances. But if students' MPA is based on different psychological reasons, trainers should recommend the help of a psychologist who would help them cope with it.

Although the research mentioned above is seen as promising for Turkish literature, conducting new studies is a major requirement. This is because since the many factors that influence musical performance anxiety varies from culture to culture, then more scale development study about MPA must be done. The aim of this study is to develop a valid and reliable musical performance anxiety scale. İn addition, the study also reflects on the characteristics of MPA in Turkish culture as well as contributes in creating a new conceptual model that will help to explain MPA in Turkish culture.

Method

This study is conducted in three phases and on three study groups. First, MPA literature was reviewed (Kenny, 2005, 2009; Çakıroğlu and Şentürk, 2013; Wolfe, 1989; Nagel, Himle, & Papsdorf, 1989). In the light of these studies, a 105-item pre-trial form was prepared for content validity. Content validity was conducted to gain the opinion of academic authorities in the field of MPA. İn this process, item efficiency in the pre-trial form was assessed by these authorities in order to remove items that identify musical performance anxiety clearly. This group of authorities consisted of associate professors, associate professors in the university's psychology department, and professors in the State's conservatory. After content validity, the number of items was reduced to 53. This new form was administered to the study group (*n*=574) and an explanatory factor analysis was performed in order to assess the construct validity of the scale. The frequencies of study group 1 (*n*=574) is indicated in Table 1.

Table 1. Characteristics of Study Group 1

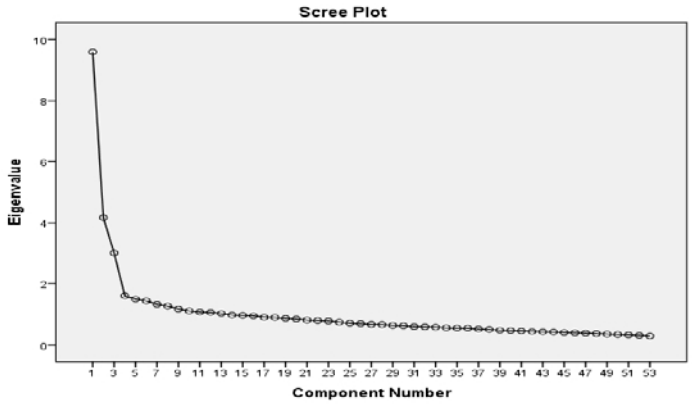
		Frequency	Percent	Cum. Percent
Gender	Male	296	51.6	51.6
	Female	278	48.4	100.0
Age	17-19	308	53.7	53.7
	20-23	213	37.1	90.8
	24 and over	53	9.2	100.0
Grade	Freshman	153	26.7	26.7
	Sophomore	125	21.8	48.4
	Junior	132	23.0	71.4
	Senior	164	28.6	100.0

Exploratory factor analysis is a multivariate statistic method of analysis. It is used independently to obtain fewer new conceptually meaningful dimensions from many related variables which are brought together (Büyüköztürk, 2002). At the same time, this process is used to assess the construct validation of scales. Construct validity refers to the ability of measuring a tool to actually measure the abstract construct (Tavşancıl, 2002). İn this study, before explanatory factor analysis was performed, the appropriateness of factor analysis was measured. KMO results obtained showed that the data set was appropriate for factor analysis (KMO=0.90; Bartlett Test of Sphericity=9108.8; Sd=1378; sig=0.001).

To examine the natural structure of the scale, no rotation was used and the results showed that there were 13 factors which accounted for 53% of the total variance. Except for the first three factors, other factors do not

contribute enough to the total variance. İt is thought that the items of the scale can be classified under three factors. İn order to determinate more clearly, Scree plot graphic was plotted. İn Figure 1., Scree plot graphic can be seen.

Figure 1. Scree Plot



İn the Scree plot, the three factors can be seen clearly. Therefore, factor analysis is repeated with varimax rotation. The rotation results showed that the scale consisted of 18 items and was classified under three factors. First factor accounted for 20.47% of the total variance, factor two accounted for 16.34% of the total variance, factor three accounted for 12.89% of the total variance, while the remaining factors accounted for 49.71% of the total variance. These factors are so named: 1) Fear of Performance, 2) Performance Avoidance, and 3) Positive Motivation for Performance. İn Table 2, the factors' names, their factor loadings, their eigenvalues, and their cronbach alpha coefficients were listed.

Table 2. Factor List of MPAS and its Factor Loadings

		Fear of Performance	Performance Avoidance	Positive Motivation for
1	As performance time nears, my stress increases.	**.746**	.037	-.034
2	I am afraid I will repeat the mistakes I made before.	**.690**	.058	-.029
3	I am afraid ı forget details about my performances when I am on stage.	**.682**	.115	.024
4	I think that the audience can recognize every mistakes I make.	**.662**	.224	.088
5	The presence of experts during my performance increases my stress.	**.646**	.074	.016
6	During the performance, negative thoughts occur about what I do	**.644**	.381	-.102

	during my performance.			
7	I prefer short performances.	**.589**	.233	-.175
8	I always talk with myself about not making mistakes.	**.583**	.075	.152
9	I try not to talk on stage even though there are 5-10mins before my performance.	.045	**.716**	-.181
10	During the performance, İf I make a mistake, I can't play the rest of the performance.	.168	**.698**	-.067
11	I hesitate to get help about my performance from my friends.	.071	**.643**	-.032
12	During the performance, when I have stomach ache, I can't play anymore.	.314	**.631**	-.106
13	I always take beta-blockers before I go on stage.	.172	**.619**	-.107
14	My friend's positive suggestions does not relieve me.	.100	**.584**	-.161
15	I always dreamed I performed well when I am preparing for my performance.	-.042	-.145	**.777**
16	I attempt to create opportunities to perform.	-.149	.008	**.762**
17	Knowing how to prepare for my performance relieves me.	.101	-.271	**.705**
18	İt is important for me to show every detail of my performance when I am on stage.	.146	-.180	**.692**
Eigenvalue		4.80	2.70	1.43
Variance		20.47	16.34	12.89
Alpha		0.83	0.76	0.74
Alpha (whole scale)		0.83		

İn the second phase of the study, a confirmatory factor analysis was performed on an 18-item scale with a new data set (*n*= 285) in order to assess its construct validity. Confirmatory factor analysis is an analysis technique which measures the fitness between latent variables and actual data which cannot be measured directly. İn other words, CFA investigates to what extent the construct which is designated previously is confirmed by the data set that is created newly. The concept of CFA was invented by Howe (1955), Anderson Rubin (1956), Lawley (1958); Bolen (1989); and Tomer (2003). In his theoretical studies, Karl Jöreskog completely developed CFA based on whether a data set consisting of identified structure is measured or not (Çelik & Yılmaz, 2013).

The new data set for CFA was collected from study group 2 who were university students (*n*=288). İn data set 3, outlier is determined and omitted from the data set. The number of study group 2 was reduced to 285 (*n*= 285). İn Table 4, the demographics of the study group is shown.

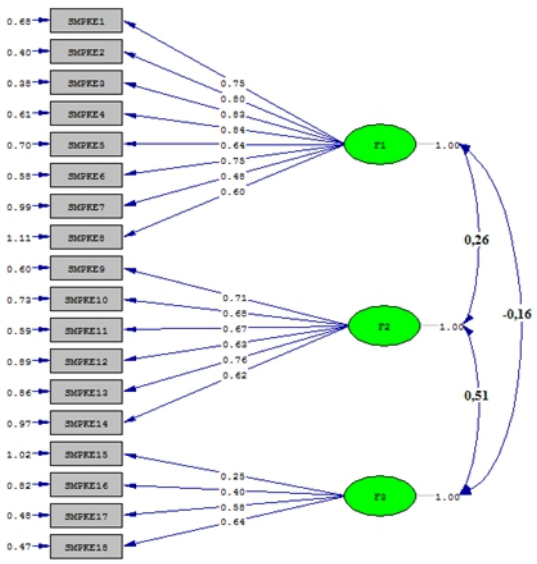
Table 3. Demographics of Study Group 2

		Frequency	%	Total (%)
Gender	Male	108	37.9	37.9
	Female	177	62.1	62.1
	TOTAL	285		100.0
Age	17-19	119	41.8	41.8
	20-23	135	47.4	47.4
	24 +	31	10.9	10.9

	TOTAL	285		100.0
Grade	Freshman	80	28.1	28.1
	Sophomore	52	18.2	18.2
	Junior	70	24.6	24.6
	Senior	83	29.1	29.1
	TOTAL	285	100.0	100.0
Solo Concert	0-2	205	38.2	71.9
	3-5	42	16.8	86.7
	6 +	38	44.9	100.0
	TOTAL	285		100.0
Group Concert	0-2	109	38.2	38.2
	3-5	48	15.6	55.1
	6 +	128	45.6	100.0
	TOTAL	285		100.0
Make Music as a Professional	Yes	32	11.2	11.2
	No	253	88.8	100.0
	TOTAL	285		100.0
Year of Music Education	1-2	6	2.1	2.1
	3-4	31	10.9	13.0
	5-6	80	28.1	41.1
	7-8	105	36.8	77.9
	9 +	63	22.1	100.0
	TOTAL	285		100.0

Cfa is performed by Lisrel 8.51. the result of the cfa is: x2(n=285) = 225,45, df=132, p<0.001, x2/df = 1.70, SRMR= 0,074, GFI = 0.92, AGFI = 0.89, CFI= 0.93, RMSEA = 0,050 (90 percent confidence interval for RMSEA 0,039; 0,061) p < .001. This results show that model is acceptable. İn figure 2. Path diagram is given.

Figure 2. Path Diagram



Subsequently, another study is the convergent validity of the scale. For this analysis, similar scales were used. These scales are trait anxiety scales, PASMS, and KMPAI. State-trait anxiety scale was developed by Spielberger (1970) et al., and was translated into Turkish by Öner and Le Compte (1985). İn this study, only trait anxiety inventory was used. Trait anxiety scale measures one's continuity of anxiety experiences. İn this inventory, scores range between 20 and 80. However, 20 refers to a low anxiety level and 80 refers to a high anxiety level. PASMS consists of 24 items and has three factors, namely: fear of stage (0.84), avoidance (0.80), and symptoms (0.86). CFA results for the PASMS is χ^2 = 652.33, df=239, *p*=0.001, and RMSEA=0.06. KMPAI consists of 25 items and has 5 factors. Thus, the alpha value of the whole scale is .89. İn Table 5, the Pearson correlations for all scales are given.

Table 5. Pearson Correlation Scores of the scales

	STAI	**PASMS**	**MPAS**	**KMPAI**
STAI	-			
PASMS	.43**	-*		
PAS	.43**	.70**	-	
KMPAI	.53**	.83**	.64**	-

İn Table 5, it can be seen that there are statistically significant correlations. The correlation between STAİ and MPAS (Musical Performance Anxiety Scale) is statistically significant but moderately strong (*r*=.43, *p*>0.01). High correlation is seen between KMPAI and MPAS (*r*=64, *p*<0.001). İn Table 6, the t-test results for the three scales' musical performance anxiety by gender was given.

Table 6. t-Test Result for Three Scales' MPA Levels According To Gender

	Gender	N	m	SS	df	t	P
MPAS	Female	177	51.77	8.65			
	Male	108	46.92	8.91	283	-4.807	.000
PASMS	Female	177	58.79	28.12			
	Male	108	43.51	24.93	283	-4.639	.000
KMPA-I	Female	177	74.92	33.31			
					283	-4.036	.000
	Male	108	59.6	29.06			

In Table 6, all scales' results show that females have more MPA level than male. When the t points of the scales are investigated, it can be seen that all t points are close to each other. These results also show that all scales have a high consistency with each other.

Another important variable that affects MPA is the frequency of giving solo concerts. İn this study, this variable was examined using the three scales and the results was given in table 7.

Table 7. ANOVA Results According to Giving Solo Concerts

Solo Concert	Sum of Squares	Sd	Mean Square	F	Sig.	Sig. Dif.
MPAS	1075.475	2	537.737	7.635	.001	**0-2 / 6 +**
	19860.511	282	70.427			
	20935.986	284				
PASMS	12316.572	2	6158.286	8.308	.000	**0-2 - 3-5**
	209034.425	282	741.257			**0-2 6 +**
	221350.996	284				
KMPA-I	11768.830	2	5884.415	5.715	.004	**0-2 6 +**
	290373.156	282	1029.692			
	302141.986	284				

From the table which shows the output of the ANOVA analysis, we can see that all scales' significance level range is between 0.00 and 0.004. Since it is below 0.05 (p>0.05), there is a statistically significant difference between MPA and the number of solo concerts. In order to find the specific groups that differed, Scheffe test was performed. From the results of the Scheffe test, it was clear that the ones who gave solo concerts 6 times or more had a lower MPA level than those who gave a maximum of 2 solo concerts. These findings are similar across the three scales, although PASMS showed one more result. According to PASMS, the one who gave solo concerts between the frequency range of 3 and 5 had a lower MPA than the one who gave a maximum of 2 solo concerts. The last variable that was examined was, making music as a profession aside from school performance. The t-test result is given in Table 8.

Table 8. t-Test Results for Three Scales MPA According to Making Music as a Professional

Making Professional Music		N	Means of MPA	Ss	df	t	p
MPAS	Yes	32	44	6.62	283	-4.279	.000
	No	253	50.69	8.52			

KMPA-I	Yes	32	48.87	33.95	283	-3.789	.000
	No	253	71.53	31.61			
PASMS	Yes	32	34.62	26.45	283	-4.059	.000
	No	253	55.32	27.27			

From the above table, we can observe a significance level of 0.000 which is below 0.05. Therefore, we can say that the ones who makes music outside of school performance had a lower MPA level and vice versa. However, it can be seen that all scales support the results.

Conclusion

In this study, we tested the validity and reliability of certain scales to measure musical performance anxiety. The most important feature of this scale is the second scale in Turkish MPA literature. As was mentioned above, MPA varies from culture to culture and many variables can affect MPA directly or indirectly. The fact that these variables vary from culture to culture, more scales should be developed in order to find and measure the impact of these variables.

This study was completed in three phases and conducted on three different study groups. Explanatory factor analysis was performed on study group 1 (n=574) and three factors were determined, namely: fear of performance, avoidance of performance, and the positive motivation for performance. The Cronbach alpha coefficient was found as 0.83. Thus, it can be said that PAS is a reliable scale. On the second study group (n=285), confirmatory factor analysis and convergent validity were performed, and the CFA results (x^2 = 225.45 and RMSEA=0.50) showed that the factors of the scale showed an acceptable fit. Furthermore, when the correlations of the scales to each other (with STAI as 0.438; with PASMS as 0.697; with KMPA-I as 0.645; and with $p<0.01$) was investigated, it was seen that STAI was on the same line as the other scales. The last study group (n=60) was analyzed using test-retest analysis. This analysis was performed 17 days apart and an alpha value of 0.91 were obtained. However, this result demonstrated the scale's consistency.

According to the CFA analysis, the best item that explained the factor, fear of performance, was the third item "I am afraid I forget details

about my performances when I am on stage" (r^2 = 0.64). This item reflects one's thoughts towards his/her performance. This thought may refer to experiences from one's past performances. Therefore, in order to determine the correlation between this item and the second item, "I am afraid I can repeat the mistakes I made before" (p> 0.01), correlation coefficient was obtained. This statistically positive result proved that mistakes made in the past may be the cause of the fear of future performances. Strelau (1989) stated that individuals use their lives as a source of cognitive process to analyze situations. He also stated that the stress level which individuals experienced in the past affects their perception of the present situation and this interaction activates them physically and psychologically. Spielberger, Gonzales, Taylor, Algaze and Anto (1978) stated that assessing the situation as threatening depends on arousal features of the condition, past experiences, memories, and thoughts triggered by the present situation. Therefore, it can be said that an individual's fear towards a coming performance depends on past experiences. According to Papageorgi et al, inadequate preparation or performing music which exceeds an individual's technical level may cause fear and this situation triggers anxiety related to future performances.

The best explanation for the second factor, avoidance of performance, was made by item 9, "I try not to talk on stage even though there are 5-10 minutes before performance" (r2 = 0.46). Avoidance is one of the important determinants of social phobia. Avoidance occurs in social situations where an individual does not want to experience. It has a negative effect on an individual's functionality as it causes anxiety or distress related fear (Işık & Taner, 2006). According to DMS-IV-TR, avoidance is one of the criterion for social phobia, and it is defined as an intensive distress which springs from anxious expectations or feared social situations, disrupts social activities and occupational or educational functionality of individuals, and suggests that there would be danger (Bayraktutan, 2004). When the items of this factor were investigated, it was seen that all items were in line with this definitions. İtem 11, "I hesitate to get help on my performance from my friends" and item 14, "My friend's positive suggestions does not relieve me" are examples of this situation. Thus, these items refer to an individual's social and educational avoidances. According to ICD-10 (İnternational Statistical Classification of Diseases and Related Health Problems), the definitions of social phobia is parallel to DSM-IV-TR. ICD-10 defines social phobia as a disorder which may cause avoidance because of being

investigated. İn addition, ICD-10 indicates that social phobia symptoms include hand shaking, mugginess and blushing. İtem 12, "During the performance when I have stomach ache, I can't play anymore" can be given as an example for his statement.

Performance avoidance is discussed in this study as both cognitive and behavioral. İn convergent validity analysis, PASMS was used and it was seen that PASMS had the same factor as well. When the correlation results were investigated, a statistically significant positive but moderate correlation was obtained. At first glance, positive, significant, and strong correlation was expected. Hence, in PASMS, avoidance was discussed only under cognitive aspects. İn MPAS, cognitive aspects are represented by two items, whereas behavioral aspects are represented by four items. Therefore, this result can be seen as normal.

Considering the items in the 3rd factor, they contain positive expectations related with performance, high level of efficacy associated with the display of performance, knowledge about what to do during the preparation phase, and confidence about all details. Analysis of these topics points to the concepts of self-regulation and motivation. If one thinks that he is delivering a good performance during the preparation phase, this shows that one has positive expectations regarding his performance. Wigfield and Eccless (2000) reported that the expectations and valuation associated with the performance influence the efforts of the performance and the related patience. The investigators divided the concept of skill into two parts, namely: current skills and future skills. They supposed that in spite of their differences, these two groups of skills are in close relation (Eccless and Wigfield, 1995; Eccless et al., 1993; Wigfield and Eccless, 2000). Regarding the 15th and 16th items of the 3rd scale factor, the 15th item represents the future skills, while the 16th item represents the confidence in the current skills. Therefore, the positive and high correlation between these two items may be a proof of the aforementioned relationship ($r= 0{,}438$, $p<0{,}001$).

The analysis of the motivation theories showed that there are two kinds of expectations: expectations about the efficacy and expectations about the result. Although, these two kinds of expectations have similar meanings, Bandura (1997) stresses that they are different. According to Bandura, the efficacy expectations play a more determining role on the performance compared to the result expectations. The essential point in the efficacy expectations, called as "self-efficacy" in the Bandura's social cognitive

theory, is one's belief in his own skills regarding the realization of his performance. McCormick and McPherson (2006) suggested that it depends utterly on their beliefs about their self-efficacy, whether the musicians display a good performance or not under certain conditions or under pressure.

Another theme associated with the 3rd factor is the importance one places on the knowledge of preparing for the performance. In this connection, knowing how to prepare oneself suggests the implementation of cognitive and metacognitive strategies in the preparation phase. Pintrich and De Groot (1990) supposed that knowledge of the cognitive and metacognitive strategies alone does not lead to success. A high motivation for the implementation of these strategies is also essential. The investigators emphasized that the concept, expectation, is expressed in different ways, like perceived efficacy, beliefs regarding self-efficacy control, and loading styles. They also noted that the expectation is directly associated with one's metacognitive strategies, implementation of the cognitive strategies, and the effort management.

İn this study, some variables mentioned in MPA literature were tested by three scales. First, MPA and gender relationship was tested and statistically significant results were obtained. According to the results, female MPA levels were higher than male MPA levels. These results correspond to many researches in literature (LeBlanc, Jin, Obert, & Siivola, 1997; LeBlanc et al., 1997; Orman, 2004; Ryan, 2004). However, it conflicts with some researches (Steptoe & Fidler, 1987; Wolfe, 1989). İn addition, factors of PAS's relationship with MPA were investigated and found that only the fear of performance had a significant relationship with gender ($t=-6.847$; $p< 0.05$). According to these findings, avoidance of performance and positive motivation for performance is the same for both male and female.

İn this study, some similar variables gave similar results. These variables are solo concerts in school and making music as a professional outside of school performance. All three scales show that individuals who gave more solo concerts had lower MPA levels than other individuals. Also, individuals who make music as professionals had lower MPA levels as well. Salmon and Meyer (1998) asserted that because expert musicians are exposed to stage conditions, they perceive psychological arousal during the performance as less threatening. Salmon, Schrocht, and Wright stated that expert musicians learn how to increase their psychological arousal level. Conversely,

inexperienced musicians can not to do this. Therefore, because the process of increasing their psychological arousal is prolonged at performance time, the performance may be botched. Because of making music as professional and giving a lot of solo concert which makes a musician an expert, these activities are thought as anxiety reducing activities.

The variables age, the amount of practicing instrument, and group concert were examined. Thus, no statistically significant relationships were obtained. İn this study, similar results were shown in three scales and these results showed that PAS was consistent with the other MPA scales.

MPAS measures MPA with a view to fear of performance, avoidance of performance, and positive motivation for performance. However, it is known that there are many other factors and variables that affect MPA. Therefore, it is advised that more scales consisting of a different set of variables should be developed for assessing MPA.

References:

France, R., & Robson, M. (1997). Cognitive behavioral therapy in primary care: A practical guide. J. Kingsley Publishers.

Eysenck, M. W., Derakshan, N., Santos, R., & Calvo, M. G. (2007). Anxiety and cognitive performance: attentional control theory. Emotion, 7(2), 336.

Barbeau, A., K. (2011) Performance Anxiety Inventory for Musicians (PerfAIM): A New Questionnaire to Assess Music Performance Anxiety in Popular Musicians. Unpublished master thesis for degree of Master of Arts in music education. McGill University, Montreal

Cüceloğlu, D. (2000). Human and Behavior. The Fundamental Concepts of Pscyhology. Remzi Kitabevi. İstanbul

Büyüköztürk, Ş. (1997). Araştırmaya yönelik kaygı ölçeğinin geliştirilmesi. Kuram ve Uygulamada Eğitim Yönetimi Dergisi, 3(4), 453-464.

Engelhard, I. M., Sijbrandij, M., Van Den Hout, M. A., Rutherford, N. M., Rahim, H. F., & Kocak, F. (2012). Choking under pressure: Degrading flash forwards related to performance anxiety. Journal of Experimental Psychopathology, 3(2), 158-167.

Gorges, S., Alpers, G. W., & Pauli, P. (2007). Musical performance anxiety as a form of social anxiety. In International Symposium on Performance Science(Vol. 1, pp. 67-72).

Cox, W. J, & Kenardy, J. (1993). Performance anxiety, social phobia, and setting effects in instrumental music students. Journal of anxiety disorders,7(1), 49-60.

Kenny, D. T. (2006). Music performance anxiety: Origins, phenomenology, assessment and treatment. Context: Journal of Music Research, 31, 51.

Marye, L.H. (2011). A survey of music performance anxiety: Definitions, causes, and treatments. Unpublished doctoral dissertation. University of South Caroline, School of Music.

Tokinan, Ö, B. (2013) Kenny Müzik Performans Kaygısı Envanterini Türkçe'ye uyarlama Çalışması. Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi (KEFAD) (14) 1, 53-65

Dinkgräfe, D., Nair, S., & Proctor, D. C. (2012). Performance anxiety in actors: symptoms, explanations and an Indian approach to treatment. Canadian Journal of Practice-Based Research in Theatre, 4(1), 1-28.

Osborne, M. S., & Franklin, J. (2002). Cognitive processes in music performance anxiety. Australian Journal of Psychology, 54(2), 86-93

LEBLANC, A. (1994) "A Theory Of Music Performance Anxiety," The Quarterly Journal Of Music Teaching And Learning, 5 (1994): 60-68.

Kenny, D. T., & Osborne, M. S. (2006). Music performance anxiety: New insights from young musicians. Advances in Cognitive Psychology, 2(2-3), 103-112.

Papageorgi, I., Hallam, S., & Welch, G. F. (2007). A conceptual framework for understanding musical performance anxiety. Research Studies in Music Education, 28(1), 83-107.

Ryan, C. & Andrews, N. (2009). An investigation into the choral singer's experience of music performance anxiety. Journal of research in music education, 57(2), 108-126.

Thomas, J. P., & Nettelbeck, T. (2014). Performance anxiety in adolescent musicians. Psychology of Music, 42(4), 624-634.

Brotons, M. (1994). Effects of performing conditions on music performance anxiety and performance quality. Journal of Music Therapy, 31(1), 63–81.

Çirakoğlu, O. C., &Şentürk, G. C. (2013). Development of a Performance Anxiety Scale for Music Students. Medical Problems of Performing Artists. 28 (4) 199-206

Büyüköztürk, Ş. (2002). Faktör analizi: Temel kavramlar ve ölçek geliştirmede kullanımı. Kuram ve uygulamada eğitim yönetimi, 32(32), 470-483.

Tavşancil, E. (2002). Tutumların ölçülmesi ve SPSS ile veri analizi. Ankara: Nobel Yayıncılık.
Büyüköztürk, Ş., Akgün, Ö. E., Özkahveci, Ö.,&Demirel, F. (2004). Güdülenme ve öğrenme stratejileri ölçeğinin Türkçe formunun geçerlik ve güvenirlik çalışması. Kuram ve Uygulamada Eğitim Bilimleri, 4(2), 207-239.
Çelik, E, H., Yilmaz, V. (2013) Yapısal Eşitlik Modellemesi. Anı Yayıncılık, Ankara.
Spielberger Cd, Gorsuch Rl, Lushene R.E. Manual for State-Trait Anxiety Inventory (self-evaluation questionnaire). Palo Alto, CA: Consulting Psychologist Press; 1970.
Öner N, Lecompte A. (1985) State-Trait Anxiety Inventory Manual. İstanbul: Boğaziçi University Press.
Strelau, J. (1989) Individual differences in tolerance to stress: the role of reactivity, in: C. D. Spıelberger, I. G. Sarason& J. Strelau (Eds) Stress and Anxiety, Vol. 12 New York, Hemisphere Publishing Corporation.
Spielberger, C. D., Gonzalez, H. P., Taylor, C. J., Algaze, B., & Anton, W. D. (1978). Examination stress and test anxiety. Stress and anxiety, 5, 167-191.
Işik E, Taner Y. (2006). Çocuk, Ergen ve Erişkinlerde Anksiyete Bozuklukları. İstanbul: Golden Print, 2006; 409-424.
Bayraktutan, M. (2014) Social anxiety disorder in patients with empathy skill, alexithymia, depression, anxiety levels and sympathetic skin response relationship and effects of medical treatment, unpublished master thesis Pamukkale Universty Faculty of Medicine Department of Psychiatry
Wigfield, A., & Eccles, J. S. (2000). Expectancy–value theory of achievement motivation. Contemporary educational psychology, 25(1), 68-81. Doi: 10.1006/Ceps.1999.1015
Mcpherson, G. E., & Mccormick, J. (2006). Self-efficacy and music performance. Psychology of Music, 34(3), 322-336. Nagel, J.J., Himle, D.P., & Papsdorf, J.D. (1989). Cognitive-behavioural treatment of musical performance anxiety. Psychology of Music,17, 12-21. Doi: doi: 10.1177/0305735606064841
Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. Journal of educational psychology, 82(1), 33.

Ryan, C. (2004). Gender differences in children's experience of musical performance anxiety. Psychology of Music, 32(1), 89–103. Doi: 10.1177/0305735604039284