Exploring Music Performance Anxiety in Indonesian Music Majors: An Analysis Based on Instrument, Gender, Experience, and School Background and Its Implications for Music Education

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ABSTRAK

Penelitian ini hendak mengeksplorasi kecemasan performa musik (MPA) mahasiswa musik berdasarkan pilihan jenis instrumen, jenis kelamin, lama pengalaman bermusik, dan asal sekolah (SMK Musik dan SMU). Penelitian ini menggunakan metode kuantitatif dengan subjek mahasiswa aktif Jurusan Musik Institut Seni Indonesia Yogyakarta (N = 133). Penelitian ini menunjukkan bahwa mahasiswi (perempuan) menunjukkan MPA yang lebih tinggi dibanding mahasiswa (laki-laki) (p = 0.03); tidak terdapat perbedaan kecemasan performa musik berdasarkan instrumen musik mayor, lama pengalaman bermusik, maupun asal sekolah (p > 0.05); terdapat 68% mahasiswa musik yang mengalami MPA tingkat medium hingga sangat tinggi. Mahasiswa musik memiliki beberapa strategi coping untuk menghadapi MPA, namun masih terdapat beberapa mahasiswa yang masih bingung dan tidak memiliki cara untuk mengatasinya. Penelitian ini diharapkan dapat menjadi suatu evaluasi pada pengembangan metode belajar musik yang memperhatikan kesiapan psikologis mahasiswa musik.

ABSTRACT

This research explores the music performance anxiety (MPA) of music students based on the instrument, gender, musical experience, and high school origin. This research utilizes quantitative methods with the subjects of active students of the Music Department of the Indonesian Institute of the Arts Yogyakarta (N = 133). This research shows that female students show higher MPA than males (p = 0.03); there were no differences in MPA based on instrument, musical experience, or school origin (p > 0.05); There are 68% of music students who experience medium to very high levels of MPA. Music students have several coping strategies to deal with MPA. However, some students still feel confused and need help to overcome it. It suggests the need to consider the psychological readiness of music students when developing music learning methods

Introduction

Every musician desires a performance that runs smoothly, plays beautifully, and captivates the audience. Long practice is carried out solely to achieve perfection when appearing on stage. The expectation of perfection from both the musician and the audience makes performing on stage a thrilling experience. Any pressure perceived by the musician produces feelings of anxiety. Anxiety can have a detrimental impact on a musician's performance if not managed properly. It can lead to decreased quality of performance,

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increased errors, difficulty concentrating, and even avoidance of performing altogether. Additionally, it can negatively affect their physical and mental health (Kenny, 2009; Spahn et al., 2021).

Music performance anxiety requires attention and anticipation from an early age. In both the short and long term, MPA significantly affects musicians' behavior and health. Musicians (especially male musicians) often engage in behaviors that are detrimental to health related to this condition, such as smoking, drinking, binge drinking, alcohol-related problems, and marijuana use; alcohol and marijuana use in musical contexts (Miller & Quigley, 2012).

As Kenny & Ackermann (2008) explained, performance anxiety can lead to several physical symptoms, such as high heart rate, sweating, muscle tension, trembling, dry mouth, dizziness, nausea, and breathlessness. Performance anxiety can lead to a range of negative psychological impacts, including decreased confidence, self-doubt, fear of failure, and negative self-talk. Performance anxiety may result in negative behaviors like avoiding performance situations, procrastination, and poor preparation. These physical, psychological, and behavioral symptoms can be challenging for music students to achieve their full potential as well as the professional musicians to play their instruments or sing at their best.

Performance anxiety is the experience of a performer experiencing reduced ability when performing in public and enduring situations of significant fear (Salmon, 1992). Performance anxiety in the context of live performances on stage is a particular form of anxiety experienced by every stage artist, such as musicians, theater actors, dancers, and others (Dhani, 2022). The specific condition of anxiety when performing (live) playing music in front of an audience is called music performance anxiety (MPA). Music performance anxiety is a complex emotional state characterized by feelings of anxiety, fear, and discomfort when playing music in public (Guyon et al., 2020; Kenny, 2009). It is not limited to professional musicians but can also affect children just beginning to learn music (Kenny et al., 2014). Music performance anxiety does not occur suddenly but begins early in a musician's experience as a music student (Boucher & Ryan, 2011; Robson & Kenny, 2017).

LeBlanc (2021) explains that several factors influence perceived performance anxiety. This variable also includes the characteristics of the performer, such as gender, age, the type of instrument the performer chooses, and the length of musical experience, proficiency, and readiness of the performer in preparing for a performance. Apart from that, some factors cannot be controlled by the performer, such as the presence of someone important, the environmental situation, sound equipment, and the condition of the instruments. Performers should understand their personal traits and external factors to minimize on-stage disruptions.

The MPA condition causes several problems for Indonesian Institute of Arts Yogyakarta students. The lecturers in the music department have identified several obstacles that students often face. These include feelings of inferiority compared to their peers in terms of musical skills, the pressure of living up to expectations as a music major at ISI Yogyakarta, the high demands placed on them by their lecturers, daily fears about not practicing enough, negative thoughts, doubts about choosing music as the right major, unhealthy students social interactions, and disappointment with academic achievements that do not meet their expectations (de Fretes, 2023, November, Personal interview).

Music teachers and institutions should evaluate materials and teaching

modules to pay more attention to students' psychological readiness. Music performance anxiety (MPA) is one of the main problems experienced by music majoring students (Guyon et al., 2020). Moreover, the profession of a musician is considered the most stressful field compared to other fields of performing arts (Sternberg, 1995). If we can identify this condition earlier, we can find ways to overcome performance anxiety and improve musicians' well-being. Unfortunately, no research has been conducted on music performance anxiety among university students in Indonesia. As explained by Dhani (2022), research on the psychological readiness of stage artists has yet to receive the attention of researchers in Indonesia.

Method

Participants

This research was carried out at the Indonesian Institute of the Arts in Yogyakarta, Indonesia, with the participation of students majoring in various subjects such as Musicology, Music Education, Music Creation, and Music Performance. Convenience sampling, a type of non-probability sampling method, was used to select the participants due to the low response rate from the student population of the institute. The study included active music students who were enrolled in the institute (N = 133; 62% males and 38% females; aged between 18-29, with a mean age of 21, $SD = 1,7$). They had been training for an average 9,38 years (SD = 3,27). The sample was characterized by the following types of music instrument: 34% strings; 13% woodwind & brass; 14% guitar; 20% vocal; 14% piano; 3% percussion.

Procedures

An anonymous, self-reported questionnaire was used as a method of data collection. The questionnaire in this study uses a Google Form application to make it easier for respondents to fill in data. Participation was voluntary, and the participants agreed that completing and returning the questionnaire was construed as consent.

Measures

Data collection for this research used a research scale instrument, namely a questionnaire that adapted the Kenny-Music Performance Anxiety Inventory (K-MPAI). This scale has five (5) Likert scales, namely SS (*Sangat Setuju* - strongly agree), S (*Setuju* - agree), N (*Netral* - neutral), TS (*Tidak Setuju* - disagree), and STS (*Sangat Tidak Setuju* - strongly disagree), with 40 items statement item. The data will be analyzed using SPSS version 24.

MPA scale scores will be classified into five categories using Azwar (1993, 2020) formula. These categories are very low, low, medium, high, and very high. With this categorization, we can determine whether the research subjects are experiencing very low to very high category levels of music performance anxiety.

Three open-ended questions were added to explore coping with performance anxiety related to live music performance. The purpose of these open-ended questions is to gather additional data and to understand the subjective ways in which each respondent deals with and overcomes music performance anxiety. These open-ended questions will help to enrich the research results and provide a more

Table 1. Descriptive statistics for Music Performance Anxiety ($N = 133$)

	minimum	maximum	M(SD)	Males M(SD)	Females M(SD)
Music performance anxiety	64	195	118.3 (23.7)	113.6 (24.7)	126.2 (19.8)

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Table 2. T-Test based on gender ($N = 133$)

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Music performance anxiety	Equal variances assumed	2.903	.091	-3.071	131	.003	-12.64964
	Equal variances not assumed			-3.246	120.871	.002	-12.64964

comprehensive understanding of the topic.

Results

Gender and MPA

The translated K-MPAI scale in Indonesian has undergone a reliability test, which resulted in a Cronbach's Alpha value of 0.911. Therefore, the scale is deemed reliable and can be used for its intended purpose. The data obtained from the use of this scale can be interpreted consistently and accurately based on the construct being measured. Descriptive statistics (values for minimum, maximum, means and standard deviations) for Music Performance Anxiety

males (Table 2).

The study's results align with past research indicating that female musicians experience higher levels of musical performance anxiety than males, especially musicians who study the classical genre (Papageorgi et al., 2013). Previous studies also say that age influences musical performance anxiety in both males and females. Research conducted on musicians in their teens showed that females had higher music performance anxiety scores than males (Osborne et al., 2005). Overall, although it is evident in this study that there

Table 3. ANOVA between music instrument groups ($N = 133$)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3166.336	5	633.267	1.130	.348
Within Groups	71161.754	127	560.329		
Total	74328.090	132			

are presented in Table 1.

Levene's test for equality of variances resulted in a value of 0.091 (p>0.05), indicating that the anxiety data for male and female students is homogeneous. This result allows us to proceed with the Independent Sample Test (Equal variances assumed) to interpret the data. The significance value (p) in the Kolmogorov-Smirnov test is 0.2 (p > 0.05), and the significance value (p) in the Shapiro-Wilk test is 0.263 (p > 0.05), so it can be concluded that the score data is normally distributed. According to the t-test value of 0.03 (p<0.05), there is a significant difference between male and female student anxiety levels. Thus, female students experience higher levels of anxiety than

are differences in levels of music performance anxiety between the genders, not all studies of performance anxiety have the same results.

Major Music Instruments and MPA

The following variable is the type of student's major music instrument. Test of Homogeneity of Variances shows that the variance between groups of instruments is 0.821 (p>0.05), so the Anova test is valid for testing this correlation. Based on the ANOVA (Table 3), the comparison between groups of instruments yields a value of 0.348 (p>0.05). This result suggests no significant difference in anxiety levels between the various instruments, which include strings, woodwind and brass, guitar, vocals, piano, and percussion. It can

be concluded that there is no significant difference in anxiety levels across different groups of musicians based on the instruments (strings, woodwind and brass, vocals, piano, and percussion). The findings of this study differ from previous research, which found that musicians with stringed instruments have been reported to experience higher levels of adaptive (where anxiety has a positive impact) as well as maladaptive (where anxiety has a negative impact) music performance anxiety compared to musicians with other instruments (Wolfe, 1989).

due to the precision needed.

Students' Musical Experience Length and MPA

Based on the Test of Homogeneity of Variances table, it can be observed that the variance between groups of instruments is 0.846 (p>0.05), indicating that the ANOVA test is valid for testing the relationship between anxiety and the length of the student's musical experience. The ANOVA table shows that the comparison between the instrument groups is 0.857 (p>0.05) (Table 4). This suggests that there is no significant difference in anxiety levels

Table 4. ANOVA between musical experience length groups (*N* = 133)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	440.906	3	146.969	.257	.857
Within Groups	73887.184	129	572.769		
Total	74328.090	132			

As Iusca & Dafinoiu (2012) explained that the relationship between anxiety and the level of musicality is influenced by the choice of instrument, where musicians with string and vocal instruments show a significant correlation between these two variables. A factor that may influence the level of musical performance anxiety felt by musicians with stringed instruments is the higher level of responsibility that these musicians have. Symptoms resulting from the emerging phenomenon of musical performance anxiety tend to harm musicians with stringed instruments more than musicians with other instruments. This condition can be due to physical disturbances. String musicians require stable physical conditions

based on the length of music practice.

The Spearman correlation test was used to analyze the correlation between musical performance anxiety and length of musical experience. The Spearman correlation coefficient level is -0.048, which indicates that the correlation is very weak and even inverse. The significance value of the correlation is 0.585 (p>0.05), so it can be concluded that there is no significant correlation between the level of anxiety and the length of musical experience (Table 5).

This finding differs from the theory discussed by LeBlanc (2021), where he said that musicians with a higher level of

Table 5. The musical experience length and MPA correlation (*N* = 133)

			anxiety	Music experience
Spearman's rho	MPA	Correlation Coefficient	1.000	-.048
		Sig. (2-tailed)	.	.585
		N	133	133
	Musical experience length	Correlation Coefficient	-.048	1.000
		Sig. (2-tailed)	.585	.
		N	133	133

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musical proficiency benefit when performing. The level of proficiency discussed here means that to achieve a high level of proficiency, a musician must spend as much time as possible and gain much experience through the time the musician spends making music. Some studies say that

theoretical five categorization formula (Azwar, 2020), it can be seen that seven (7) students (0,5%) experience very high MPA, 43 students (32%) in high category, 41 students (31%) in medium category, 36 students (27%) in low category, and seven (7) students (0,5%) in very low category

Table 6. T-test of the student's high school of origin (*N* = 133)

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Music performance anxiety	Equal variances assumed	.008	.927	-.568	131	.571	-2.39434
	Equal variances not assumed			-.564	108.679	.574	-2.39434

music students have higher levels of musical performance anxiety than professional musicians. However, other studies say that professional musicians' levels of musical performance anxiety tend to be low, and many other musicians rarely experience this condition. However, as this research proves, Marko (2019) proposed that the length of musical experience does not significantly influence musical performance anxiety.

Student's high-school origin and MPA

The following variable is the student's high school of origin. This variable is divided into two categories, namely SMM (Sekolah Menengah Musik - Music High School) or SMK-M (Sekolah Menengah Kejuruan-Musik - Music Vocational High School) and regular public school. Based on the t-test value of 0.571 (p>0.05), it is known that there is no significant difference between the MPA of university students from music vocational high school and regular high school origin (Table 6).

MPA Score Categorizations

The following step is to categorize the levels of musical performance anxiety among music students at the Indonesian Institute of the Arts Yogyakarta. From the

(Table 7). It can be concluded that 68% of music students at the Indonesian Institute of the Arts Yogyakarta experience medium to high levels of anxiety during musical performances.

Student's Coping Strategies

Apart from the analyses mentioned above, there are also ways for students to cope with musical performance anxiety they experience before, during, and after performances. Some of the most common strategies used before performing include praying, positive self-talk to boost confidence, calming techniques, breathing exercises, increasing practice time, distraction, drinking water, observing the stage conditions, stretching, thinking positively, surrendering to God, self-affirmation, warming up, and in some cases, smoking.

As Miller & Quigley (2012) explained, smoking behavior is one of the efforts made by music students to cope with anxiety. As members of the academic community at this institute, we are aware that music students may resort to other coping strategies that were not mentioned by the research subjects, such as drinking alcohol or possibly consuming marijuana.

When it comes to performing, students may experience different levels of anxiety. However, data shows that there are varying results between students and how they deal with performance anxiety on stage. While performing, several students reported feeling less anxious than before. To alleviate anxiety, some common techniques students use include focusing on their appearance and themselves, using breathing techniques, enjoying the game, believing in themselves, ignoring the audience, giving affirmations to themselves, thinking positively, trying to remain calm, interacting with the audience, imagining exercising, taking a moment to close their eyes, and moving their body.

Upon finishing the performance, most participants reported that their anxiety had dissipated. They also expressed relief and a release of negative thoughts about their performance. Some common post-performance activities included evaluating their performance, resting, giving themselves positive feedback, drinking water, chatting with friends, taking a moment alone away from the venue (without watching others' performances), and smoking.

Conclusion

Based on the research findings, it can be concluded that female students experience significantly higher levels of anxiety compared to male students. However, there was no significant difference in anxiety levels observed across different groups of musicians based on their instruments, such as strings, woodwind and brass, vocals, piano, and percussion. Moreover, there was no significant difference in anxiety levels based on the length of music practice or between the MPA of university students from music vocational high school and regular high school origin. It was found that 68% of music students at the Indonesian Institute of the Arts Yogyakarta experience medium to high levels of anxiety during musical performances.

Apart from that, music students have reported their coping strategies to deal with music performance anxiety. From the three time-categories (before, during, and after performing), we can conclude that students feel most anxious before performing. However, some students reported that they have no coping strategy for their anxiety.

It is crucial to conduct additional research to determine the efficacy of

Table 7. Five categorization formula (Azwar, 2020) ($N = 133$; $M = 118$; $SD = 24$)

Categories	Formula	Subjects	Percentage
Very low	$X \leq M - 1{,}5SD$ $X \leq 83$	7	05%
low	$M - 1{,}5SD < X \leq M - 0{,}5SD$ $83 < X \leq 106$	36	27%
Medium	$M - 0{,}5SD < X \leq M + 0{,}5SD$ $106 < X \leq 130$	41	31%
High	$M + 0{,}5SD < X \leq M + 1{,}5SD$ $130 < X \leq 154$	43	32%
Very high	$X > M + 1{,}5SD$ $X > 154$	6	05%

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individual coping strategies used by students to manage music performance anxiety. Additionally, music educators and trainers should strive to gain a deeper understanding of this condition and the most effective and efficient techniques to help students overcome it.

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