The Influence of Vocal Technique on Music Performance Anxiety

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Abstract: Background: This research investigates the intricate relationship between vocal technique and MPA, aiming to distinguish how the mastery and application of specific vocal techniques may mitigate or exacerbate performance anxiety in vocalists. Method: The study employs a mixed-methods approach, combining quantitative assessments and qualitative analyses to explore the experiences of vocalists in diverse performance settings. Results: The findings suggest that several treatment plans can achieve reduced levels of MPA. By identifying specific vocal mechanisms and exercises associated with anxiety alleviation, this research seeks to provide practical strategies for vocalists, educators, and performance coaches to address MPA systematically. Conclusion: This study bridges the gap between vocal pedagogy and psychological well-being within the context of musical performance. The research provides invaluable insights regarding MPA for performers, educators, and researchers alike, fostering a holistic understanding of the factors shaping the emotional landscape of vocal performance.
Keywords: Music Performance Anxiety, MPA, Vocalist, Vocal Technique, CBT

1. INTRODUCTION

1.1 Background of the Research

1.1.1 Musical Performance Anxiety (MPA)

Music performance anxiety (MPA) is a common term affecting musicians across various domains, contributing to performance-related stress and impaired artistic expression. The hindrance in the musical performance of an individual to the point of questioning the individual's musical exercise, aptitude, and training is generally known as Music Performance Anxiety (D Kenny, 2011). The Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association does not have a fixed definition of MPA. Instead, the term "stage fright" is used in regard to music performance anxiety (Wiedemann, Vogel, Voss, & Hoyer, 2022). Performers encounter all sorts of anxiety-related issues while on stage. Characteristic traits play a rather significant role in the

embodiment of MPA, which includes cognitive, affective, behavioral, and psychological symptoms (D. T. Kenny, 2005). Various research also indicates the association of other factors, such as gender, age, and other environmental factors, which created hindrances in the performance of vocalists (Harrington, 2016). Female performers were observed to experience MPA more than males, but it also depends upon the age variance among the participants (Dianna Kenny, Driscoll, & Ackermann, 2014). Positive predictors were also found in several types of research, which indicated that self-efficacy and performance boosts created a guidance pathway toward better performance. It was seen that if the musicians experienced their own performance as positive, it would result in better performances in the future. On the contrary, if the musicians view their performance as negative, their future performances are hindered.

1.1.2 Significance of Addressing MPA In Vocalists

MPA among performers and musicians is the main cause of downfall among many artists who aspire to achieve high standards of success. Due to the increase in their performance anxiety, they are most likely to face criticism based on their anxiety-ridden performance. It is important to address this specific issue as it poses a threat to the rise of skillful and talented performers who are judged and ridiculed because of their performance anxiety.

1.1.3 Research Gap

The topic of music performance anxiety lacks depth and only discusses the issue on a surface level. This research is a valuable addition to the pool of resources in the area of music and psychology. By bridging the gap between existing studies on MPA and adding the discussion of possible treatment options for MPA, this research will provide insight into the vocal techniques involved in overcoming MPA.

1.1.4 Objectives of the Study

The objectives of the study include: 1. To investigate the vocal techniques involved in reducing MPA. 2. To assess the types of MPA. 3. To investigate the anxiety scale used to measure MPA

2. LITERATURE REVIEW

A descriptive population study was carried out to assess the mental

welfare of professional orchestral performers in Australia, where eight full-time professional pit orchestras and symphonics were provided with a psychosocial questionnaire (Dianna Kenny et al., 2014). It was stated that female musicians in Australia's professional orchestras exhibited more advanced levels of anxiety and depression than male musicians. Moreover, the younger participants of this study also reported high levels of unhealthy behaviors, depression, and anxiety. Twenty percent of the study's population gave affirmative answers regarding post-traumatic stress disorder. An increase in alcohol consumption was also found in the participants, which affected their music performance anxiety. This study found a strong outline of depression, anxiety, and other health behaviors that should be addressed in order to provide safety regulations and regulatory programs for this arena. MPA is known to have a significant impact on the mental well-being of a musician, affecting their capability to deliver top-notch performances (Kenny, 2011). It appears in three ways: cognitions, autonomic arousal, and behaviors (Kenny, 2005). Performance anxiety may range from normal to devastating and even be considered a mental condition. The International Conference of Symphony and Opera Musicians (ICSOM) surveyed over two thousand expert musicians, revealing that 24% had stage fright, 13% exhibited acute anxiety, and 17% experienced depression (Fishbein, Middlestadt, Ottati, Straus, & Ellis, 1988). According to another research, solo performances were noted to be the major reason for an increase in MPA (Spahn, Krampe, & Nusseck, 2021). The three main grounds of MPA that were found in this research include self-pressure, excessive arousal, and insufficient training for the routine. Orchestral performers might find it overwhelming to practice for their next performance, hence creating a quality barrier due to inadequate practice, relying heavily on their spontaneous skills. To overcome these anxious situations, musicians reported coping strategies, which included breathing exercises, positive self-talk, and familiarization with the venue where the performance was to be held. Medication use was also observed upon doctor's prescriptions to alleviate MPA. The treatment and prevention plan included the most active plan, exposure therapy, and cognitive restructuring. The majority of studies used Cognitive Behavioral Therapy as an alternative to combat music performance anxiety (Kendrick, Craig, Lawson, & Davidson, 1982). Another study conducted a self-analysis and used experimental observations to detect MPA and other nonverbal actions in a female lead vocalist (Broughton, 2015). This case study found that classical vocalists with extensive MPA may exhibit nonverbal actions during live performances. There was more pre-

performance state anxiety expressed before playing alone at a midday recital than before providing a solo routine at an evening performance. Nonverbal cues from the vocalist supported the differences in self-reported anxiety levels between the two performances. In the more anxiety-inducing performance, the soprano demonstrated far more self-stimulating adapter behaviors. This scenario shows how performing musicians' nonverbal actions reflect their purposes and how stress can "leak" into their presentation. Anxiety-related nonverbal actions may have an adverse effect on performance quality and effective performer-audience communication. These nonverbal indicators can have a rather significant impact on the audience's judgment, causing them to create a negative impression. Thus, in addition to more conventional methods of MPA management, performance-based strategies might be useful in helping musicians give their best performances via growth and feedback. MPA management strategies were suggested in this study to overcome the MPA in musicians and vocalists. Keeping the results and findings under consideration, Cognitive Behavioral Therapy and stress reduction activities were suggested to conquer the symptoms of MPA. Moreover, performance-based activities were proposed to create more musician-centered or vocalist-centered techniques in order to manage MPA and communicate with the audience effectively ("What is Cognitive Behavioral Therapy," 2017). The discussion on MPA in choral singers and its impact on their performance is discussed at length in another research (Stothert, 2012). The study's methodology includes 85 participants of community chorus singers in British Columbia, Canada, in order to examine the psychological and physical indications of MPA as well as the characteristics that affect it. The MPA of singers is greatly influenced by conductors, and the anxiety levels of the singers they lead may be impacted by their actions and traits (Matei & Ginsborg, 2017). Choral conductors are essential in assisting singers with managing MPA by using techniques like fostering relationships of trust and treating psychological symptoms. The findings showed that anxiety levels were higher before a performance than during it and that 95% of the individuals had some indications of anxiousness prior to performing. It was discovered that mental symptoms—such as fear—worried people more than physical ones, like difficulty in achieving relaxation. The most significant conclusions drawn from this research are that physical symptoms could be reduced, that anxiety can be reduced by behavioral techniques like musical preparation and mindfulness, and that confidence can be developed through trustworthy relationships between conductors and singers. To overcome the intricate problem of MPA, treatment plans

were introduced and examined to present an effective treatment option for vocalists (Juncos et al., 2017). A collection of student singers was selected from a top college for the sole purpose of testing the treatment option of MPA. Acceptance and Commitment Therapy (ACT) was observed to have pivotal effects in the treatment of MPA in university singers, as well as better psychological flexibility and overall quality of performance. It has been discovered that ACT, which emphasizes acceptance, mindfulness, and values-driven conduct, lessens the symptoms of MPA and enhances student vocalists' performances. Improvements were noted in post-treatment appointments in the individuals' psychological flexibility, acceptance of MPA symptoms, and cognitive disorientation. Additionally, it seemed like students were less embarrassed about having MPA and were performing better overall. These results demonstrate how outspoken pupils may be less affected by physical MPA signs, and they also contribute to the body of evidence that suggests ACT is a potential remedy for MPA.

3. METHODOLOGY

3.1 Research Design

Quantitative measures include standardized anxiety scales, vocal performance evaluations, and physiological assessments to gauge stress responses. Qualitative methods involve in-depth interviews and surveys to capture nuanced insights into the subjective experiences of performers.

3.2 Data Collection

The data was collected through the diverse range of research available on Google Scholar. Many research studies were skimmed in order to analyze the MPA and the techniques on how to reduce it.

3.3 Techniques to Reduce MPA

Several techniques to overcome MPA are to be discussed and evaluated in this research paper. More importantly, the techniques of Cognitive Behavioral Therapy and other vocal techniques are discussed in detail to combat the rising issue of MPA in vocalists.

3.4 M-MPAS (Anxiety Scale)

Mazzarolo developed a scale that is used to measure the music performance anxiety of an individual (Mazzarolo & Schubert, 2022). This was created to investigate the aversion inclinations, frequency, and intensity

related to performing music. It is made up of five items with a seven-point Likert scale that gauges a person's nervousness related to performing music.

4. RESULTS AND ANALYSIS

4.1 M-MPAS Analysis

Mazzarolo Music Performance Anxiety Scale is a self-report that can be given as a questionnaire to evaluate and assess MPA (Mazzarolo & Schubert, 2022). This scale was established to assess the dire need to evaluate an individual's Music Performance Anxiety. After a thorough analysis of the internal consistency and construct validity of the M-MPA Scale, the results revealed good statistical significance. This questionnaire covers all areas, including intensity, aversion, and frequency of anxiety in the musical performance of a participant. After a short introduction, the questionnaire, which is participant-centered, is presented. The Likert-type seven-point scale used in the scale ranges from 0 = "Strongly disagree" to 6 = "Strongly agree" in response to five statements: (1) for each of the five items: "I experience strong nerves/anxiety before I perform," (intensity) (2) "I frequently experience nerves/anxiety before I perform (frequency)," (3) "I avoid performing in order to alleviate my nerves/anxiety," (aversion), (4) "I feel positive before my music performances," ("negative" aversion, with reverse scoring used for this statement), and (5) "I don't want to go ahead with my music performances because of my nerves/anxiety" (aversion).

Table 1(a): Mazzarolo Music Performance Anxiety Scale (M-MPAS) (Mazzarolo & Schubert, 2022).

	Strongly Disagree	**Disagree**	**Slightly Disagree**	**Neither Agree Nor Disagree**	**Slightly Agree**	**Agree**	**Strongly Agree**
1. I experience strong nerves/anxiety before I perform	0	1	2	3	4	5	6
2. I frequently experience nerves/anxiety before I perform	0	1	2	3	4	5	6

Table 1(b): Mazzarolo Music Performance Anxiety Scale (M-MPAS) (Mazzarolo & Schubert, 2022).

	Strongly Disagree	**Disagree**	**Slightly Disagree**	**Neither Agree Nor Disagree**	**Slightly Agree**	**Agree**	**Strongly Agree**
3. I avoid performing in order to alleviate my nerves/anxiety	0	1	2	3	4	5	6
4. I feel positive before my music performances	6	5	4	3	2	1	0
5. I don't want to go ahead with my music performances because of my nerves/anxiety	0	1	2	3	4	5	6

After an introduction, the M-PAS items list is preceded by the following instruction: "The following statements will ask you about your experience with music performance anxiety. To what extent do you disagree or agree with each of the following statements?". Numerals in the matrix are not shown to participant/client, but are used for scoring by researcher/therapist. The score is calculated as a simple sum of the 5 numerals. Scores can range from 0 (lowest MPA experience) to 30 (highest MPA experience).

4.2 Types of Music Performance Anxiety

According to a study, Music Performance Anxiety is categorized into three types based on several combinations of symptoms, functional coping, and self-efficacy, which hinder the musician's performance (Spahn, Walther, & Nusseck, 2016). The three MPA types are distributed differently within musical groupings. The breakdown of MPA types changes significantly depending on parameters including age, gender, solo part playing, and performance attitudes. According to the results, self-efficacy may function as a moderator variable. For instance, a strong sense of self-efficacy throughout the performance may reduce a high degree of MPA symptoms prior to the performance.

4.2.1 Type 1

This type of Music Performance Anxiety discusses a rather positive initial pattern. The participants begin their performance with a positive connotation and follow it through the end. The self-efficacy is noted to be

very high in this type, which means that the participants feel confident for the next musical performance. Some negative aspects were observed but were quickly dealt with, which means this type has a stable and well-developed self-efficacy. This type possesses a highly functional coping mechanism when it comes to MPA, and the symptoms remain at a low level.

4.2.2 Type 2

The second type of individuals begin their performances with high symptoms of MPA. Slowly and gradually, the individuals lower their symptoms by maintaining strong self-efficacy and great use of functional coping mechanisms. These symptoms are lowered through strong self-efficacy, leading to a positive response after the performance with a decrease in the individual's MPA symptoms and maintaining stability. This type can be rated as positive because of the overcoming factors and characteristics of the individuals during their performance. This type has a positive connotation for their next performance, indicating a good performance overall.

4.2.3 Type 3

The third type among musicians begins their performance with neutral symptoms of MPA, which only increases in intensity as their performance moves forward. Individuals of this type do not have strong functional coping mechanisms or self-efficacy to overcome their symptoms, leading to a negative impact on their music performance anxiety. This type is rated as critical as the performance could not take a positive turn. After the performance, individuals find themselves in an adverse position, meaning they would not be excited for their next performance. These individuals are unable to manage their MPA symptoms effectively and end up in a critical situation afterward. This would lead to negative self-assessment of their musical performance and a lower level of confidence. The gist of these types is that self-efficacy, and a highly functioning coping mechanism are critical to overcoming the symptoms of music performance anxiety (MacAfee & Comeau, 2020). In particular, we consider the pattern following the performance to be relevant when evaluating the types. Specifically, a musician's feelings before their next performance are greatly influenced by their ability to cope and their sense of positive self-efficacy after the performance. This upbeat outlook might give rise to the belief that the performance is a challenge, which boosts confidence and helps

MPA. All three types of Music Performance Anxiety and their characteristics are presented in Table 2.

Table 2 : Characteristics of the three types of music performance anxiety (MPA) (Mazzarolo & Schubert, 2022)

Characteristics	Type 1	Type 2	Type 3
Before and During the Performance	• Low symptoms of MPA • Very high functional coping • Very high self-efficacy	• High symptoms of MPA • High functional coping • High self-efficacy	• Moderate symptoms of MPA • High functional coping • Moderate self-efficacy
After the Performance	• Low symptoms of MPA • Very high functional coping • Very high self-efficacy	• Low symptoms of MPA • Very high functional coping • High self-efficacy for the next performance	• High symptoms of MPA • Moderate functional coping • Moderate self-efficacy for the next performance
Self-Assessment of the Musical Quality	• High	• High	• Moderate
Perceived Performance Difficulty	• Moderate	• High	• High
Personal Importance of the Performance	• High	• High	• Moderate
Most Frequent Appearances in the Sample Groups	• Choir Singers	• Wind instrumentalists • Amateur musicians • Solo parts	• String instrumentalists • Professional musicians

4.3 Vocal Techniques

There are certain vocal techniques involved in overcoming the music performance anxiety of an individual. Vocal coaching plays an important role when it comes to music and performance anxiety (Shaw, Juncos, & Winter, 2020). There are a few techniques which should be followed to overcome stage fright and performance anxiety: 1. Identify the source which is wreaking havoc in your brain. While on stage, try to narrow down the source of what is causing this anxiety and what it is that you're afraid of. When you focus on what is bothering you, the first is completed. 2. Breathe deeply as you try to figure out what is causing your performance anxiety. Relaxing your nerves and calming your body by breathing deeply

causes your brain to function properly. Remember the four-second rule of breathing while trying to calm down: breathe in for four seconds, hold your breath for four seconds, and breathe out for four seconds. Through this technique, your heartbeat slows down, and anxiety is alleviated. 3. Warm up your voice properly. Through the vocal warm-up techniques, vocal strain can be avoided, and improvement in tone and increase in range can be observed. Some vocal exercises include humming, arpeggios, and lip trills. Singing along with another song with which you are familiar can also help with overcoming music performance anxiety. 4. Focus on the music you are playing. Individuals tend to get distracted while on stage. Focusing on your own music will get your attention on your performance and will not let you get distracted. Expressing yourself will be easier when you are present and focused on your performance. 5. Practice regularly and create a routine that involves practicing for several hours, but not so much that you feel monotonous. Practicing your performance will not let you feel unfamiliar with what you are performing on stage.

4.4 Techniques to Overcome MPA

Cognitive Behavioral Therapy (CBT) is an effective mental plan of action that is considered to combat mental health disorders, such as depression, addiction, anxiety, and other issues (APA, 2017). This therapy is based on scientific evidence and evident change in behaviors and thinking capabilities. Through this treatment plan, individuals lead a significantly improved quality of life by becoming their own therapists. They develop coping mechanisms and come up with effective life skills that help them get through difficult situations. Many studies have proven CBT to be an effective form of mental treatment, even more than psychiatric medications (Brugués, 2011). A study conducted on the treatment of music performance anxiety demonstrated the help of CBT to regulate MPA's symptoms (Nagel, Himle, & Papsdorf, 1989). This research study aimed to evaluate the efficiency of CBT in performance anxiety. Performance anxiety was measured in a group of pianists, and the results were observed pre-treatment and post-treatment. After the data was collected, it was observed in the data that the performance anxiety was lowered in response to the provided treatment plan. It was observed that MPA is related to other types of anxiety as well. The success of CBT in accordance with MPA resulted in the reduction of anxiety during performance. The treatment plan of CBT usually involves changing the thought process and behavior of an individual. Some strategies are outlined below:

1. One of the most effective strategies is to acknowledge that one's own

thought bias is the one causing the issue and should be reassessed in the context of reality. Changing the way individuals talk to themselves, that too positively, plays a significant role in changing the negative thinking pattern. Suffering from music performance anxiety can be alleviated by including positive self-talk. 2. In order to overcome MPA, an individual should believe in their skills and learn to acquire a greater sense of confidence in themselves. Confidence in ourselves is more important than external validation. It is crucial to believe in our capabilities and skills as it is the confidence boost that is required to overcome performance anxiety. This can be done by gaining better insights into the behavior and motivation of one's own self. Focusing on their self-confidence and abilities makes it easier for them to access their inner star and overcome their anxiety. 3. A behavioral strategy that should be applied is to face one's fear. Avoidance tactics only postpone inevitable situations, developing other problems such as fear of confrontation. By facing it rather than running away from it, the individual actually feels a sense of relief that it is finally over. The problem, which was hanging like a sword on the individual's head, finally vanishes after facing it. It might seem overwhelming in the beginning, but by facing them, no situation is postponed. 4. Treat your mind and body to stay relaxed, even in a tense situation. When an individual starts to train their mind and body to stay relaxed in all situations, they start to manage their problems more effectively rather than panicking and making rash decisions. Staying present and active in all scenarios helps to think critically and take a calculated step. Promising results are observed in several MPA studies in accordance with CBT as an effective treatment plan. It is advised in research to incorporate CBT methods in private music lessons in order to add cognitive and behavioral goals into the practice of students (Cina, 2021). By adopting the above-given strategies of CBT in MPA-affected individuals, they can achieve great lengths of success.

5. DISCUSSION AND IMPLICATION

This research discusses in-depth music performance anxiety and how to combat it. Several studies were analyzed and viewed under the light of MPA. The quantitative analysis of M-MPAS from another research was carried out, and it was found that it successfully measured the MPA intensity. Although the validity and reliability assessments indicate that this constraint is acceptable, future research may look at the psychometric effects of changes that find and strengthen the M-MPA scale's potential

shortcomings. Furthermore, the three types of MPA were discussed, which indicated that the intensity of MPA differs in every individual. Self-efficacy and highly functioning coping mechanisms were the critical characteristics needed to overcome MPA. Moreover, some vocal techniques were discussed, which addressed several tactics to overcome MPA and stage fright. The implications of this research extend beyond individual performance enhancement, potentially influencing pedagogical approaches and curriculum design in vocal education. Understanding how vocal technique can serve as a modulator of MPA may contribute to the development of targeted interventions and educational practices that empower vocalists to navigate the psychological challenges inherent in musical performance. Some limitations were faced while conducting this research, including time constraints. Moreover, very limited research has been conducted on vocal techniques in accordance with music performance anxiety, which created hindrances. The ethical considerations were kept in mind while conducting this research, and proper citations and references were provided.

6. CONCLUSION

Music performance anxiety (MPA) is a common phenomenon affecting musicians across various domains, contributing to performance-related stress and impaired artistic expression. The current study bridges the gap between vocal techniques and the psychological well-being of an individual with regard to music performance anxiety. A mixed-method approach was used in this study to analyze the quantitative and qualitative studies carried out in the field of MPA. This study highlights the quantitative medium through which MPA can be measured effectively. Moreover, several techniques are discussed in detail, which indicate vocal techniques as well as behavioral and mental techniques to battle MPA. The results of this study propose that CBT is an effective technique to overcome MPA in musicians through strategies. Furthermore, different vocal techniques can also help in overcoming music performance anxiety. These techniques can be applied in several situations while performing with the aim of overcoming MPA.

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