

**A LITERATURE REVIEW OF CLASSICAL SINGING AND MUSIC  
PERFORMANCE ANXIETY**

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**Abstract**

Music Performance Anxiety (MPA) affects many professional and amateur musicians. Research examining the effects of MPA on the performer and potential treatments for alleviating symptoms is gaining momentum. This review of literature examines previously-completed research on pathological MPA and classical singing, as well as related literature regarding MPA and other musicians. This review was conducted to provide a basis for further research on the topic of pathological MPA as it specifically applies to classical singers. Since the scope of research on MPA and singing has been fairly limited thus far, this paper includes and examines topics beyond just MPA and singing. This review focuses on MPA that is so severe that it negatively affects the performer's physical and mental well-being, in addition to negatively affecting performance. MPA and other anxiety disorders have been shown to be closely linked (Kenny, 2006). Therefore, MPA is an important aspect of mental health which requires close examination. Articles by leading experts in the field of MPA research, such as Spahn and Kenny, feature prominently in this paper. Firstly, this paper begins with an exploration of research which focuses specifically on MPA and singing. Secondly, this paper discusses research which examines the mental and physical effects of anxiety on the performer. Thirdly, this paper summarizes research papers that have studied potential treatments for MPA. This review of literature concludes with recommendations for student musicians and classical singers who suffer from pathological MPA based on the research examined. Teachers need to be aware of the effects of MPA and potential treatments to help their students effectively work

through their anxiety. This proves especially relevant for teachers of singing, since singing is entirely contingent on the body and anxiety can cause many physiological effects that can negatively affect the singer's entire instrument (Larrouy-Maestri and Morsomme, 2014). Based on the findings of this review, I recommend further research on the mental and physiological effects of MPA, especially for singers, since most research to date has focused on pianists and other instrumentalists. In addition, I advocate for further exploration of potential treatments for MPA so that musicians suffering from pathological MPA may have more well-researched options for treatment.

*Keywords:* music performance anxiety, classical singing, student singers, effects of anxiety, cognitive behavioural therapy, psychotherapy

## **Introduction**

This review of literature will examine the physiological and mental effects of severe Music Performance Anxiety (MPA) on classical singers, as well as potential treatments that may relieve symptoms. The focus will be on severe MPA which negatively impacts the performer's mental and physical well-being. MPA at moderate levels has been shown to be beneficial to performance but is detrimental when it exists at very high levels (Spahn, Echternach, Zander, Voltmer, and Richter 2010). Very low levels of MPA can also be detrimental to performance, but that topic is beyond the parameters of this paper (Spahn et al., 2010). MPA and anxiety disorders are closely linked, and both issues may have roots in unresolved childhood emotional trauma, a lack of training, negative experiences with conductors or teachers, and genetic differences inherent to the individual (Kenny, 2006, Ryan and Andrews, 2009). Singers may find themselves especially affected by MPA since the human voice is the only instrument to exist entirely within the body and therefore, is extremely volatile and susceptible to changes in the performer's mental and physical health (Larrouy-Maestri and Morsomme, 2014). The literature for this review was collected using online databases, using search terms such as "voice pedagogy," "music performance anxiety," "singing," "anxiety," "opera," and "chronic anxiety." Many of the articles found in the databases were written by pedagogues drawing on personal experience, rather than developed through scientific methodologies and careful analysis of hypotheses. The literature included here centres around scientific studies. This review includes studies which examine instrumentalists as well as singers because literature which focuses on MPA in the classical singer is limited and I found expanding my scope beyond those which focused on MPA and singing necessary. This review addresses the need for greater scholarly attention to the topic of pathological MPA as it specifically applies to classical singers. Further research is necessary due to the singer's unique position as both the instrument and the musician, and the inherent close connection between

the singer and their voice. This connection implies that as a singer's body is impacted by MPA, their instrument itself is also impacted. This review will begin with a discussion of singing-specific studies on MPA, followed by a discussion of articles that analyse the mental and physical effects of MPA on performers, and will end with a consideration of different treatments for severe MPA. This review functions as an overview of literature relating to MPA and classical singing, specifically. Other sources in this review (for example, those which examine instrumentalists) are included to potentially shed further light on how MPA affects musicians, and to examine effective courses of action to alleviate symptoms.

### **Singing-Specific Studies on MPA**

This section will examine studies that focus specifically on singing and MPA. This section focuses on amateur singers, chorus singers, and opera singers. Abril (2007) investigated anxiety as related to singing through cognitive, behavioural, somatic, and affective symptoms in 3 female elementary education university students who had not studied singing. Data was collected through participant journals, interviews, and field texts over a period of ten weeks. Participants only reported anxiety related to singing when in a social or performing context, due to fear of being evaluated negatively by others. The participants felt these feelings stemmed from negative experiences in their early music education, and therefore the author hypothesizes that music educators and family members have a significant impact on how a person views their own singing abilities. Broomhead, Skidmore, and Eggett (2010) and Broomhead, Skidmore, and Eggett (2012) studied positive mindset trigger words to assuage anxiety in choral singers. The 2010 study examined 86 non-expert adult singers from a college choir and the 2012 study examined 155 junior high singers. In both studies, singers either participated in a control group, attending a regular choir rehearsal, or in the intervention group, where they were guided through a routine of breathing and silently repeating positive words (such as "confident" or "bold") which are intended to trigger positive responses in the brain mid-

performance. Participants were tested immediately before and after the intervention, as well as two weeks later. Results showed an improvement in expressivity, dynamics, and timing, but not in articulation or tone. The researchers hypothesize that regular interventions of positive trigger words may help singers of both ages to improve expressivity in their performances and increase self-awareness during performances. Abril (2007) and Broomhead and colleagues (2010, 2012) both examine moderate MPA in amateur singers (amateur in this instance being defined as singers who do not currently have professional aspirations, or singers who are just beginning to learn); Abril examines the symptoms of MPA, while Broomhead et al. studies potential interventions for MPA. That these three studies examined moderate MPA in amateur singers is useful because it provides a starting point for examining MPA, however, further research on severe MPA as it manifests in professional singers, or advanced singers with professional aspirations, is lacking, as demonstrated below.

Beck, Cesario, Yousefi and Enamoto (2000) studied saliva samples taken from 31 professional chorus members before and after two rehearsals and one performance of Beethoven's *Missa Solemnis*, for a total of six samples from each participant. The immune system response of the participants was measured by examining secretory immunoglobulin A and cortisol. Immunoglobulin A levels increased 150% during rehearsals and 240% during performances, which suggests increased positive emotional arousal and pleasurable social interaction. Cortisol decreased 30% during rehearsals and 37% during performances, which suggests lower stress levels. The participants' perception of their own performance was the greatest indicator in their immunoglobulin and cortisol levels. This article is important because it examines some of the specific physiological effects of rehearsal and performance, and because it examines how a person's perception of their performance can significantly alter their feelings of goodwill or stress pertaining to the performance. Ryan and Andrews (2009) examined 201 members of semi-professional choirs and their experience of performance

anxiety as well as their coping methods, completed through questionnaires. MPA affected many of these singers, but those with more training reported less frequent (but equally severe) instances of MPA than singers with less training. The participants labelled solo performances as more anxiety-inducing than ensemble performances, and pointed out the significance of the conductor regarding their experience of anxiety. This article is important because it includes some statistics of how many choral singers suffer from severe anxiety, how gender affects MPA, and the differences between solo MPA and ensemble MPA. The articles in this segment discuss professional or semi-professional chorus singers, who face different stressors than solo opera artists, but are relevant because they explore the physical effects of MPA on the singers, and potential contributing factors to an individual's experience of MPA.

Kokotsaki and Davidson (2003) noted differences in how vocal students of different genders respond to MPA. They examined 21 second-year and 22 third-year voice students at the Guildhall School of Music and Drama using the Spielberger's State Trait Anxiety Inventory (STAI) (Spielberger, 1970). Female students reported greater general anxiety levels than male students, as well as higher anxiety during jury situations. In addition, this study notes that students that achieve higher marks have greater experience and training levels and perform better under anxious conditions than students with less experience, who achieve lower grades. These distinctions are in agreement with Ryan and Andrews (2009) who found that a singer's experience level often directly correlated with their experience of MPA. Kenny, Davis, and Oates (2004) examined the effects of MPA on 48 professional singers employed full-time with a national opera company. The participants reported higher levels of trait anxiety and occupational strain than the general population. This study examined the connections between state anxiety (emotional arousal in the face of danger or threatening demands) and trait anxiety (the tendency to respond with state anxiety in anticipation of dangerous situations where the situation is not actually dangerous). This study found a close relationship between trait anxiety

and MPA, but noted that occupational stress also impacts the quality of working life in professional vocal artists. These studies share certain similarities if we consider that vocal students and professional artists both face a sort of occupational stress, and that their levels of experience can have an impact on how that occupational stress may influence their MPA. Singers who experience more anxiety day-to-day are more likely to experience debilitating levels of MPA.

Spahn, Echterbach, Zander, Voltmer, and Richter (2010) discussed the four levels of MPA: affect, cognition, behaviour, and psychology, as well as the continuum on which MPA exists, from low MPA to high MPA. The researchers studied 7 opera singers and 2 instrumentalists to determine how performing affected their heart rate and blood pressure and found that both heart rate and blood pressure were highly elevated during performance. The authors found no clear relationship between anxiety levels and physiological arousal but found intermediate levels of tension, rather than high levels of tension, resulted in the best performances. The article concludes with some potential treatments for pathological (severe or debilitating) MPA. This article occupies a notable place in this review because of the researchers' focus on singers. Additionally, this research provides insight into varying physiological responses to MPA and examines how these responses may affect performance. Thomson and Jaque (2016) examined the phenomenon of overexcitability in elite performers. They examined 84 dancers, 62 opera singers, and 49 athletes. Overexcitability is a heightened physiological response that occurs in reaction to both external and internal stimuli and results in intensified experiences; it may be more present in those who show early promise at a particular activity. The authors determined that singers and dancers showed greater levels of overexcitability than athletes. They investigated the psychological profile of overexcitability, which includes five dimensions: psychomotor, sensual, imaginal, intellectual, and emotional, which they accomplished through examining participants' self-reports on five

factors: overexcitability, fantasy proneness (which can prove to be both beneficial to the creative process and detrimental to the individual), shame, anxiety, and depression. Results demonstrated that singers and dancers scored much higher in all factors except depression, which rated consistently across singers, dancers, and athletes. Elevated levels of overexcitability accurately predicted levels of shame, anxiety, and depression in all three groups. A close relationship potentially exists between overexcitability, high musical achievement and MPA. Spahn and colleagues (2010) and Thomson and Jaque (2016) each examined potential factors that lead to an increase in MPA, and both discuss how MPA (and its related phenomenon) can be detrimental to the performer.

### **The Mental and Physical Effects of MPA on the Performer**

This section will examine studies that focus specifically analysing the effects of MPA on the performer. This section focuses on questionnaires used to explore MPA, predicting factors of MPA, and physiological effects of MPA on both instrumentalists and singers. Sârbescu and Dorgo (2014) examined MPA through the lens of three dimensions: somatic and cognitive features, performance context, and performance evaluation. The researchers tested 134 high school music students using the MPA Inventory for Adolescents. Results suggested that all three dimensions mentioned contribute to the effects of MPA, and the authors advocate for viewing and treating MPA as multi-dimensional, rather than uni-dimensional. This study outlines the many factors that influence an individual's experience of MPA and discusses the importance of viewing the treatment of MPA as fluid and adaptive. Although it does not focus on singers, this study outlines different ways MPA can manifest in musicians. Alzugaray, Hernández, López and Gil (2016) conducted a study using the Kenny Music Performance Anxiety Inventory, which is based on Barlow's theory of performance anxiety and is used to evaluate anxiety on stage (Barlow, 2000). This questionnaire was answered by 490 musicians studying in Spanish conservatories, and results suggest that this inventory may be useful for

analysing MPA. The researchers found a close relationship between MPA, psychological vulnerability and early family influences. This study is valuable because it outlines potential early causes of MPA and provides insight suggesting which musicians may be more prone to developing MPA. Sârbescu and Dorgo (2014) and Alzugaray and colleagues (2016) examined two questionnaires in depth: the MPA Inventory for Adolescents, and the Kenny Music Performance Anxiety Inventory (KMPAI). The KMPAI, developed by Kenny, Davis and Oates (2004), has since been used by Juncos and Markman (2015) and cited by Ryan and Andrews (2009) and Spahn, Echternach, Zander, Voltmer, and Richter (2010), among many others. Therefore, it is an important and well-used tool for examining MPA.

LeBlanc, Jin, Obert, and Siivola (1997) tested 27 male and female high school band performers under different performing atmospheres: alone in a practice room, with one researcher in a practice room, and in a rehearsal room with all researchers, a tape recorder, and a peer group. Participants self-reported their anxiety levels during each performance situation, while researchers recorded the participants' heart rates during each performance. Judges rated each performance, and the researchers interviewed each participant after their performances. Participants reported the lowest anxiety when alone in the practice room, and the most anxiety when performing with all the researchers, a tape recorder, and a peer group. Heart rate remained consistent during the performance alone in a practice room and when in the presence of one researcher, but rose significantly when performing for all researchers, a tape recorder, and the peer group. Female students reported higher levels of anxiety and had significantly higher heart rates than male students, but judges rated the female students' overall performance scores higher than the male students. Biasutti and Concina (1997) examined potential predicting factors for MPA, such as gender, experience, and weekly hours of practice, and how relevant different coping mechanisms are to the treatment of MPA. Participants consisted of 97 advanced university students and 74 professional musicians, who completed the Performance

Anxiety Index and the Coping Orientation to Problems Experienced. Results show that those who use social support and avoidance coping mechanisms scored higher in MPA, those who practiced more hours per week scored lower in MPA, and professional musicians experienced lower MPA than students. The researchers concluded that an individual's coping mechanisms for stress greatly influences how they will be affected by MPA, and that MPA can be improved through experience and training. I hypothesize that as students grow in confidence, this may lead to a reduction in MPA, but until they reach a confidence level where MPA may be less problematic, workshops on managing MPA would be beneficial to many music students.

Gender differences in MPA are becoming an important trend across these studies. This topic warrants further research, as exhibited by the studies discussed above. In contrast, Perdoma-Guevara (2014) examined relationships between the genre in which performers specialized and MPA. 625 participants answered an online survey that contained questions pertaining to emotions during performance and conceptualizations of their own performances. Results found that Western classical performers experienced significantly greater amounts of negative emotions in comparison to performers of non-classical genres. Each group had a different approach to how they viewed music performance. These studies are important to consider because they examine the different determining factors to an individual's experience of MPA. Gender, genre, experience level, childhood experiences, hours of weekly practice, and coping mechanisms can drastically impact a performer's anxiety. If we can determine which factors can lead to pathological MPA, we can create ways to combat it in advance, develop treatments, and educate performers on MPA.

Hamann (1982) examined the effect of anxiety on both instrumental and vocal performances, using the STAI (Spielberger, 1970). 90 subjects were recorded, then adjudicated by three experts for musical quality. The study found that when participants who scored higher on the STAI faced elevated anxiety situations, they experienced a heightened state of anxiety.

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Subjects who scored low on STAI experienced lower anxiety levels in the same situations. This article is useful because it includes a comparison of vocalists and instrumentalists, and because it compares how performers with low-level anxiety react to stressful performance situations to those with higher-level anxiety. Yoshie, Kazutoshi, Murakoshi and Ohtsuki (2009) studied how a performance situation affected pianists' subjective, autonomic, and motor stress responses. The researchers measured the subjective state anxiety, heart rate, sweat rate, and electromyographic activity of the upper extremity muscles of 18 skilled pianists. Each pianists' measurements were compared during rehearsal conditions and competition conditions. Researchers found that heart rate and sweat rate increased significantly during the competition conditions, as well as increased muscle tension. These responses can negatively affect a pianist's performance, mental health, and physical soundness. Both articles examined the physiological effects of MPA, and how different levels of baseline anxiety affect MPA; those with higher anxiety in general experience higher levels of MPA, and therefore likely experience more elevated physiological responses.

Studer, Danuser, Hildebrandt, Arial, and Gomez (2011) studied 169 university music students of various specializations, including 23 vocalists, using the STAI and the Nijmegen Questionnaire for hyperventilation complaints (van Dixhoorn and Duidenvoorden, 1985). This study examined the effects of hyperventilation before performance, rather than during performance, as most studies have explored. The researchers determined that a significant correlation exists between hyperventilation prior to a performance and a performer's negative experience of MPA, particularly among wind instrumentalists and singers. Furthermore, women reported higher levels of hyperventilation prior to performing, and experienced more negative feelings of MPA than men. The researchers advocated for experimental studies to determine if hyperventilation and MPA manifest at the physiological level. Larrouy-Maestri and Morsomme (2014) studied the effects of stress on singing voice accuracy in 31 music

students. The students were recorded during a music examination in front of a jury and during a non-stressful condition, during which only the student and examiner were present. Participants self-reported their anxiety using the Competitive State Anxiety Inventory – 2 Revised (Martinet, Ferrand, Guillet, and Gauthier, 2010). Researchers measured each participant's heart rate during performance and the accuracy of each participant's performance was analysed using a spectrogram. Results demonstrated positive effects of stress on the singing accuracy of second-year students but negative effects of stress on the singing accuracy of first-year students, since the music examination was particularly challenging for the less-experienced students. Highly significant correlations were discovered between a student's cognitive symptoms and their vocal accuracy, as students who experienced high-intensity cognitive symptoms demonstrated a decrease in singing accuracy.

### **Potential Treatments for MPA**

This section will examine studies that explore potential treatments and/or interventions for participants who suffer from MPA. This section focuses on group workshops, including desensitization training and performance/audition training, and psychotherapy and cognitive behavioural therapy as treatments for severe/pathological MPA. Reitman (2001) examined the effects of Music-assisted Coping Systematic Desensitization on MPA. 18 musicians, ranging in experience from student to professional, were divided into three groups: verbal coping systematic desensitization, music-assisted coping systematic desensitization, and a control group. Subjects performed before and after treatment in front of three judges. Reitman measured MPA using heart rate, electromyography, the STAI, and the Performance Anxiety Response Questionnaire, both before and after performances. Both treatment groups showed improvement compared to the control group, and additionally demonstrated significant reductions in anxiety-related muscle tension. Music-assisted coping systematic desensitization treatment could be particularly useful for singers, because the vocal structure is a very small

and delicate set of muscles. Hoffman and Hanrahan (2012) examined the effects of psychoeducational workshops on 33 participants of different ages and musical experience regarding their anxiety levels during performances. Participants ranged in age from 19 to 66 years, and differed in experience from student, to amateur, to professional. Participants learned mental skills strategies through three guided sessions. Researchers analysed participants' self-reports, behavioural and physiological indicators of anxiety, and performance quality were tested before and after each session. The researchers found that participants in the treatment group showed a significant reduction in anxiety post-intervention. The control group showed a decrease in performance quality while their anxiety levels remained somewhat constant. Benefits of the mental skills strategies workshop continued and strengthened during a one-month follow-up. These articles demonstrate the importance of mental health education for performers and provide evidence that such interventions can be very helpful to performers who suffer from performance anxiety.

Spahn, Walther and Nusseck (2016) studied the effectiveness of a seminar intended to teach students how to cope with MPA in audition scenarios. 13 university students participated in the program, with eight students in the control group. The intervention comprised of 14 weekly sessions and contained video feedback, body awareness exercises, and discussed cognitive methods for dealing with MPA. The students performed a simulated audition before and after the intervention, filled out questionnaires at both auditions, and had their performances evaluated by two judges and 12 orchestral musicians (via video recording). Results found a significant improvement in MPA as self-reported by the students, and the judges rated the second auditions of the treatment group significantly higher than the auditions of the control group. This study is valuable because it discusses the differences between MPA experienced during a regular performance and MPA experienced during an audition. This study also examined the effectiveness of group seminars in treating MPA, rather than just individual

counselling. For sufferers of mild to moderate MPA, group sessions may prove a more cost-effective way of managing MPA and provide techniques for students to develop in order to prevent MPA from worsening through their education. Spahn is an important scholar of MPA in musicians and her work is especially important in this context because of her specialization in singers with MPA.

Nagel (2010) conducted a literature review that focuses on two different potential treatments for MPA: Cognitive Behaviour Therapy (CBT) and psychodynamic treatments. The author emphasizes that different treatments will be beneficial for different patients, and that one treatment will not help all sufferers of MPA. The author found that psychodynamic treatments are not discussed as much in the literature but may prove to have longer-enduring benefits. This review is an important overview of existing literature that relates to my topic, as well as a crucial discussion of two of the most common treatments for MPA (and anxiety in general). This paper is important because of the focus on the effects of different treatments of MPA, and its outlining of the existing scholarship on this topic. Kenny, Arthey and Abbass (2014) examined the effect of Intensive Short-Term Dynamic Psychotherapy (ISTDP) in treating MPA in one professional musician who had suffered from extreme MPA for his entire career. This is the first reported study on ISTDP for a professional musician, and results found that it may be a helpful step for treating MPA in other musicians. The participant underwent ten sessions of ISTDP, and the researchers hypothesize that his particular case of MPA had roots in unresolved emotional issues from childhood. The results show that some cases of MPA could have roots in deeper psychological issues, and through treating these unresolved issues, MPA symptoms could be drastically improved. Kenny, Arthey and Abbass (2014) explored a potential treatment of MPA not discussed in Nagel (2010), but since ISTDP is still a new treatment, CBT and psychodynamic treatments should still be considered as valid options for treatment, since they have been studied with more subjects and more thoroughly.

Brooks (2014) hypothesized that re-thinking feelings of anxiety as feelings of excitement may help to combat the issues of performance anxiety. This may be useful for individuals who find it difficult to remain calm when feelings of anxiety become significantly escalated prior to a performance. Reformulating their thought process from one of fear to one of excitement may prove more effective than avoiding feelings of fear altogether. The author uses the term ‘arousal congruency’ to define this phenomenon, which means that the physical effects of anxiety and excitement are very close, and it takes little effort to shift a person’s thought patterns from one to the other. This article describes one form of emotional regulation that may be useful for singers who suffer from performance anxiety, even though the article itself does not focus on musicians. Juncos and Markman (2016) examined the effects of Acceptance and Commitment Therapy (ACT) on a single university student with debilitating MPA. ACT is a new therapy that seeks not to lessen the symptoms of MPA, but rather to enhance psychological flexibility through identifying avoidant behaviours and increasing awareness of hexaflex processes. ACT may lead to a decrease in symptoms, but a decrease in symptoms is not the explicit goal; instead it promotes mindfulness and acceptance of symptoms. The ACT Hexaflex includes six goals to include psychological flexibility: contact with the present moment, values, committed action, self as context, cognitive defusion, and acceptance. The subject in this study experienced significant improvements in anxiety, performance quality, and overall distress. This study is valuable because of its close examination of one potential treatment for debilitating MPA, allowing for an intensive understanding of the treatment studied. The studies in this section explore new, dynamic ways of rethinking MPA treatments beyond traditionally-accepted therapies such as CBT.

### **Conclusion**

This literature review examined three main aspects of MPA: how MPA manifests in singers, how current scholars examine the effects of MPA, and treatments for MPA, both well-

studied, common treatments and new treatments. This review is limited in scope because of the relatively small amount of research focusing on MPA and classical singing. Much of the MPA research completed to date focuses on the effects of MPA on instrumentalists, but singers experience MPA in a unique way, and therefore should be studied closely as well. A significant lack of literature focuses on MPA in singers, especially when considering pathological and debilitating experiences of MPA in singers. I encourage further research on the mental and physiological effects of MPA in both instrumentalists and singers. Further research is needed on the treatments of MPA, particularly treatments that have been developed more recently, such as excitability training and ISDTP. I also advocate for further study examining the connection between MPA and other anxiety disorders. Researching MPA has many applications for the field of music pedagogy, and greater understanding of MPA could lead to more effective teaching practices which minimize the negative effects of pathological MPA.

Based on this review of literature, I urge music students struggling with MPA to seek resources from their teachers or to attend anxiety-related programs and workshops in their area. Speaking to a registered therapist about options for alleviating symptoms of MPA may be very beneficial, as well as trying various techniques shown to help with general anxiety disorders, such as cognitive behavioural therapy or meditation. Reitman (2001) demonstrates the effectiveness of Music-assisted Coping Systematic Desensitization for sufferers of MPA. Both Hoffman and Hanrahan (2012) and Spahn, Walther and Nusseck (2016) display the benefits of group workshops and seminars for performers with MPA. Kenny, Arthey and Abbass (2014) suggest Intensive Short-Term Dynamic Psychotherapy as a potentially useful treatment for MPA, while Juncos and Markman (2016) recommend Acceptance and Commitment Therapy. Exploring potential root causes for an individual's experience of MPA may prove helpful, so I recommend seeking professional help when MPA is severe enough to impact a performer's well-being.

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