

**Wales Institute for Work Based Learning**

**Module No: BMPF7013**

**Module Title: Independent Study**

September 2023

Jordan Baker (2030535)

**A Study on the physiological impact of performance anxiety on  
singers and strategies that might ameliorate it**

# **A Study on the physiological impact of performance anxiety on singers and strategies that might ameliorate it**

## **Part 1: Portfolio**

### **Introduction/Rationale and Contextualisation:**

Understanding the physiological impact of performance anxiety on singers is crucial for identifying effective strategies to ameliorate its effects. This study aims to explore the physiological repercussions of performance anxiety on singers and investigate potential strategies that can alleviate its negative impact. To comprehensively investigate the physiological impact of performance anxiety on singers, researchers have employed a range of research methods. Performance Anxiety has proven to have a multitude of effects, both psychological and physiological such as “worry, narrowed attention focusing on mistakes and/or physiological (... , shallow breath, heart palpitations, dry mouth, tension, and shaking” (Stothert, 2012, pg 52). I believe that researching and gaining more insight into the physiological impacts of performance anxiety and the methods that can be used to improve upon it is of great importance as “The physiological results of performance anxiety are detrimental to musicians’ abilities to perform” (Ely, 1991, pg 36). I agree with Barefield (2012) in believing that “A teacher does a great service to a student by helping that individual recognize and honor that which is singular about his or her work” (Barefield, 2012, pg 63) and the best way of doing so is by making sure we, as their teachers, to inform ourselves on the research and methods about the voice and teach to the best of our abilities.

There are a variety of methods which I will be diving into within this study, one highly researched and proven effective through approach involves cognitive-behavioural therapy (CBT) (Kenny, 2011), which focuses on identifying and challenging negative thoughts and beliefs associated with performance anxiety (Otte, 2022). However, there are other methods which can be utilised in the aiding in the reduction of MPA such as Acceptance and Commitment therapy techniques in combination with ACC and the Scratch Pad Pop Up Model. ACC is a type of behavioural treatment that

employs exposure and other behavioural concepts to achieve beneficial results (Shaw et al, 2020). This method is of interest to me as it is one which can be used in a teaching setting by a teacher without any psychological training. It also utilises many of the techniques used in CBT and ACT such as promoting psychological flexibility so the individual may become less stuck in any of these problematic behaviours (Shaw et al, 2020). The Scratch Pad Pop Up Model is based upon using a visible model where the students can visualise their intrusive thoughts and have a way of dealing with them (Appendix 1).

Greene and Savage (2009) support the highly commonplace experience of music performance anxiety and it leading to feelings of fear, loss of self-confidence, and inability to concentrate. Being aware that MPA is a present existence in many vocalists performances, it can be considered important to understand how and why this happens, the ways in which to combat it. I intend on exploring and investigating the impact of performance anxiety on the voice through critically evaluating existing literature and acknowledging studies alongside studies on the physiological impact while experiencing anxiety. My goal is to understand more about and look into how performance anxiety affects the voice by analysing the literature that already exists and citing research on the physiological effects of anxiety in combination with utilising a literature review. By following articles such as that by Machi and McEvoy (2012) I was provided a flow chart that provided some further guidance to me throughout my review. (Appendix 2)

I will also analyse existing literature from other fields, such as medicine, in order to understand the physiological function of our voice when singing and the ways in which Musical Performance Anxiety (MPA) can impact it. The range of literature that I chose, from journals and books to websites, was so that I felt I received an overview of a variety of methods and had enough to analyse to come to a clear conclusion once finishing my study. I chose to focus on the topic of performance anxiety as through vocal lessons I have provided but also through personal experience, I have witnessed the impact that it can have on someone's mental state during a performance and the impact on the voice itself. For me personally, it would cause shakiness in the voice and a lack of control. As I have had firsthand

experience I do believe that it is important, for me as a vocal teacher, to do further research into MPA and its impact on the voice.

Furthermore, I have some prior experience having been a vocal teachers assistant and providing my own private lessons for a small number of people. However, my knowledge on the specific impact anxiety has on the voice during a performance is limited to merely what I would notice audibly by listening and analysing the performance and I am therefore constrained by my lack of having the full insight on the why and how and the multitude of ways to improve a students' MPA. Some commonly noticed symptoms of anxiety on the voice that are audible to the listeners are shakiness, a crackly and raspy sound, a lack of control regarding volume and pitch (Folk, 2021).

There is little evidence in the literature of methodologically rigorous intervention for MPA (Clarke et al, 2020). I believe it is important to discuss and analyse the already existing literature to discover the already existing methods which can improve MPA and to potentially discover new techniques that I can apply to my lessons. As "it has been acknowledged that "Vocalists present a unique challenge for clinicians in that vocal and breathing mechanisms, required for performance, are negatively impacted when anxious" (Clarke et al, 2020, pg 1). In my opinion it is a highly relevant topic to delve deeper into as it is of great relevance for vocalists and especially in live performance situations. This is due to experiencing the impacts of MPA first hand. Furthermore, by looking into the various physiological impacts on the voice as a result of MPA, such as "Dry mouth, Sweating, Dizziness, Elevated heart rate, Shortness of breath, Gastrointestinal activation" (Center for Vocal Health, n.d.) we can discover what needs to be concentrated on, such as one's breathing and how to gain better control over the voice.

By delving into the literature that is used I can define, then compare and contrast each method that I have chosen to focus on throughout my study, those being; ACT, ACC, CBT and The Scratch Pad Pop Up Method. Through analysing the already existing literature and studies on the previously mentioned methods, I will be able to find the pros and cons to each and critically evaluate which I consider applicable to my future lessons. Moreover, I plan on conducting a narrative literature review to

analyse the existing literature that I have chosen. I chose these methods as in my initial research into MPA, these are the ones which I considered the most appealing to me personally. Through analysing the existing literature on what each method is, in what ways they are relevant to my study and by comparing and contrasting them, I hope to achieve my aim. The large array of literature to be examined, dispersed over the broad domains of music and psychology, presents a possible weakness for this study. Due to the limited scope and short timeframe of this study, I may need to narrow my attention to a few select topics while providing a broad review of others. Ultimately my aim through this study and delving into this research is to emerge from it with, what I consider, a well rounded knowledge on how the voice reacts to MPA, its relevance in teaching and finding the methods which I deem the best suited for my future teachings.

### **Planned Programme Of Study:**

#### **Aims and Outcomes:**

The aims of my study into the physiological impact of Music Performance Anxiety and the methods which can be used to ameliorate its impact include:

- To improve and build on pre-existing knowledge on the physiological impact of performance anxiety on the voice during a performance.
- To increase my understanding of various approaches to conducting a literature review on the topic of performance anxiety in order to improve my organisational as well as academic research abilities.
- To reflect on whether the research on performance anxiety and the voice from the last 40 years can inspire innovative concepts for use in vocal lessons.
- To examine Acceptance and Commitment Therapy (ACT), Cognitive Behavioral Therapy (CBT), Acceptance and Commitment Coaching (ACC) and the Scratch Pad Pop up Model for overcoming performance anxiety, to compare and contrast them and how to put them to use in practical situations to enhance vocal performance and reduce anxiety.
- To gain insight into how performance anxiety influences the voice and the vocal performance itself.

### Objectives:

- To compare and evaluate texts critically by performing a thorough examination of the relevant literature.
- To do a thorough search across pertinent books, journals, articles and websites in order to discover the primary researchers and contributors to the topic of performance anxiety.
- To take into consideration the effects of the methods mentioned above in terms of how they can alter and impact my own live vocal performances
- To take into consideration the effects of the methods mentioned above in terms of how they can alter and impact vocal lessons with future students and their live performances.
- To identify and consider any disagreements and contrasting opinions among authors and academics in regards to the topic of performance anxiety and the methods in aiding it.

Timescales:

[illegible]

|                                            |  |  |  |  |  |  |  |  |  |  |
|--------------------------------------------|--|--|--|--|--|--|--|--|--|--|
| Contextualization.                         |  |  |  |  |  |  |  |  |  |  |
| Part 2: Write drafts of main body of text. |  |  |  |  |  |  |  |  |  |  |
| Critical Reflection.                       |  |  |  |  |  |  |  |  |  |  |
| First Draft of full assignment to Tutor.   |  |  |  |  |  |  |  |  |  |  |
| Time for rewrites and improvement.         |  |  |  |  |  |  |  |  |  |  |
| Submit completed assignment.               |  |  |  |  |  |  |  |  |  |  |

### Methods and Resources:

This study is a desktop study review in the form of a narrative literature review. I will be doing research into existing literature on the topic of musical performance anxiety and how it impacts the vocalist physiologically. The range of sources will be taken from studies done in the 1980s until present 2023. It is important to do research and analyse previously done studies in order to ensure that I am obtaining the most accurate information and that I can build my own educated judgments free of bias (Salisbury, 2020). I conducted research into a variety of journals, websites and some books in order to provide myself with the information needed to make a conclusion on the best treatments for MPA and to gain a greater understanding on the physiological impact on the voice.

My aim of my literature review is to lay out the information I have required in a manner in which I can clearly analyse what I have discovered and understand to the best of my ability how to apply what I find to my lessons. Main sources of the literature I found are from google scholar and from the library resources provided by University of Wales, Trinity Saint David.

### Critical Reflection:

The purpose of my research into the physiological impact of performance anxiety on singers and strategies that might ameliorate it was to improve upon my knowledge of how our bodies react to performance anxiety and better inform myself on the ways in which I can help future students make sure they can still perform to their full potential. I went into the research and the literature review optimistic, believing that there would be a plethora of research into the physiological impact of MPA,

particularly on the voice; however, I found myself struggling to find a large amount on it. There are a variety of ways in which I can delve into my critical reflection but I believe that the best way is to go through my process step by step. I myself have in the past experienced MPA and the debilitating impact it has had on me physiologically and in turn on my performances. Only when learning to harness that anxiety and the best ways in which to move forward do I feel like I was able to improve my vocal performance. I also see the way MPA impacts vocal students I have had and many fellow musicians. As a result of this I consider understanding the impact of MPA and the methods in which to help it vital and extremely useful.

According to Dewey (1983) there are three attitudes in being successful in being a reflective teacher: open-mindedness, wholeheartedness, and responsibility. As a teacher it is in my opinion, of importance to remain open minded and receptive to the ever growing studies and new insights in education. To be a successful teacher it is important to reflect on what and how we teach and focus on finding ways to improve.

I intend on approaching this critical reflection through using direction provided by Bassot (2013) in The Integrated Reflective Cycle. This cycle focuses primarily on four steps that help give a sense of guidance when reflecting, these are the experience, reflection on action, theory and preparation. Through maintaining the steps provided I am able to keep a sense of direction throughout the critical reflection.

I approached the study by critically analysing pre existing literature on MPA, the physiological impacts of MPA on the body and voice and some of the many methods which have been explored to help with it. My main aim of this literature review was to discover exactly how a vocalist's voice and therefore their performance, is impacted as a result of performance anxiety and to inform myself on the ways in which I could help future students that suffer from MPA to hopefully overcome their MPA or at the very least learn how to lessen the impact it has on their performance. I chose to focus on Acceptance and Commitment Therapy, in combination with Acceptance and Commitment Coaching, The Scratch Pad Pop Up Method and Cognitive Behavioural Therapy. I decided on these as they stood out to me the most in terms of what I would consider using in my lessons with future students. These stood out to me as in

prior research I came across these topics and through my own experience in vocal lessons, these all have points that I feel would have been beneficial to me during my lessons.

Through my initial research I found that I was able to find many sources on the various techniques that can help with MPA such as Acceptance and Commitment Therapy (ACT): The Pros and Cons by Alisha Verly Jensen (2022) and Performance Anxiety in Professional Musicians: a systematic review on prevalence, risk factors and clinical treatment effects from Fernholz et.al; 2019. I was able to find these through using our University Library services but also by using search terms such as; MPA in singers, MPA Coping methods, ACT and MPA, and more. However, I did notice that it was significantly harder to find a large range of sources with the specific focus on the physiological impact on the voice as a result of MPA. I used the library resources provided by the university and online searches using search terms such as; Physiological impact of MPA, Impact of MPA on voice/on singing. Even doing this I was only really able to find about 3 sources that I could use for my study, these being: Dynamics of the Singing Voice by Bunch (1995), A Review of the Breathing Mechanism for Singing: Part 1: Anatomy from McCarther (2019) and the Centre for Vocal Health Website. I went into this expecting to find more studies and source material on the topic which then did raise the question of did I choose the right topic for myself and some panic in the amount that I ended up finding. I expected to find more as I made an assumption that it was a topic well covered as I myself consider it to be of great importance to understand the instrument which I am teaching, in this context, the voice. I went into this more hopeful for source material but I do believe that the topic is the correct one for me as I do find it very interesting and that it is of great importance to be aware of the physiological impact of MPA on the voice as both a vocal teacher and a vocalist. Therefore, I dove into my paper using what I could find, what I hope to have been, to the best of my ability.

Moreover, to ensure I maintained structure in my paper and a sense of direction while writing and of course reading the study once it was written, by looking into my notes and making sure to take breaks and go back to my work with fresh eyes. By doing research into how to conduct a literature review I was able to set myself some rules as I realised it is highly important to do my best to remain organised and also

ensure to remain clear on what it was I was discussing and keep a sense of the direction the study would go. To prepare for writing the assignment I read through my sources and wrote them all down by hand as for me personally, it is the best way to remember what I have read. I then proceeded to organise them into categories for topics they are relevant to and made a full plan with the entire structure of my paper, going from introduction, through each point in the order in which I wished to discuss it, all the way to my conclusion. By providing myself this clear cut structure and having my sources organised beforehand, it helped with guiding me through the writing process.

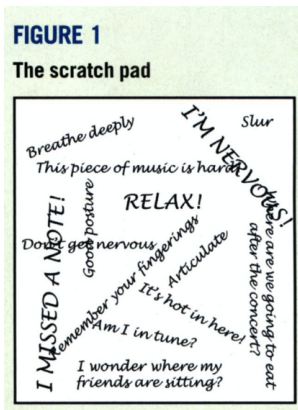
One of my weaknesses is that I can go off on tangents and add points which are not entirely relevant to what is being discussed. Therefore I decided to do my best to avoid this by being strict with myself through the planning. I do believe this structuring and guidance helped with making sure I remained on track throughout the review. However, some complications with my strict planning that I gave myself was that of course, unexpected things can happen which interfere. For me the greatest struggle was my work becoming unexpectedly more stressful due to a large project, struggling with my own mental health and having things start to pick up also in my music writing session. Finding the balance between work, my music, my studies and ensuring to focus on my health has been exceptionally hard, especially when it came to simply sitting myself down and reading through enough material to fully understand what I was writing about in my literature review.

Another challenge that I found myself faced with was, as a result of choosing the topic of physiological impact of MPA on the voice, there was a decent amount of medical terminology that I ended up needing to work my way through. Not only that but a large array of data as well. It was difficult to focus when being surrounded by all these statistics and terminology but I did my best to filter out what was relevant to what I was doing my review on and what did not necessarily need to be included. Deciding on what is and isn't relevant is also complicated at times because to an extent, it is all of course relevant. Everything I read throughout preparing for my literature review was immensely relevant to the topic. However, what is important is picking and choosing what, in that moment, is the most relevant to the specific things I am discussing.

When applying all of this research into practice I will need to be wary of ensuring no ethical boundaries are crossed. As I did a lot of research into various therapy methods, it can be easy to accidentally blur the line between what I as an aspiring teacher can do and methods I can use, and what only a licensed professional therapist should do. It was highly important for me to ensure I could identify what I could use in my lessons to help my students to the best of my ability without crossing any boundaries. As I am more of an emotional person rather than a practical one I tend to lean towards wanting to understand the psychology behind MPA and really understand the feelings students go through and empathise with them. This study has taught me to not rid myself of that but to make sure that I can step back, look at things from a more practical standpoint so that I can ensure to provide the best support and teaching that I can. With this knowledge I can go into part two of my assignment with a more analytical mindset, instead of a more emotionally driven one.

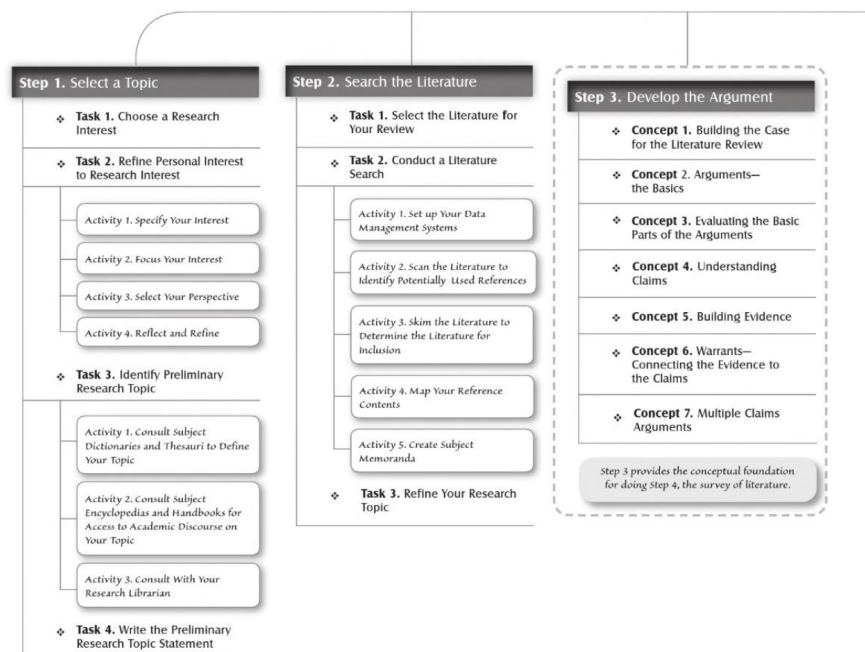
## Appendix:

- Robertson, D. U., & Eisensmith, K. E. (2010). Teaching Students about Performance Anxiety: The Scratch Pad Pop-Up Model. *Music Educators Journal*, 97(2), 31–35. <http://www.jstor.org/stable/40960200>



- Machi, L. A., & McEvoy, B. T. (2012). *The Literature Review Six Steps to Success* (2nd ed.). SAGE, 1

The Six Steps of the Literature Review, Page 1



## **Part 2:**

### **A study on the physiological impact of performance anxiety on singers and strategies that might ameliorate it.**

#### **Introduction:**

Many musicians are forced to stop performing as a result of MPA or use unhealthy coping strategies (Clarke et al, 2020). I intend on doing my best to aid my students in dealing with any Musical Performance Anxiety (MPA) they may face. This study will explore the impact that MPA can have on students physiologically and how these reactions can in turn impact one's vocal performance.

There are many potential strategies for ameliorating MPA. I have chosen those most appealing to me based on my findings in the literature. These will include Acceptance and Commitment Therapy (ACT), in combination with Acceptance and Commitment Coaching (ACC), The Scratch Pad Pop Up Model and Cognitive Behavioural Therapy (CBT).

Discussing the physiological impact of MPA is important, as fully understanding the body's physical response to MPA, will inform how to manage these symptoms. It has been acknowledged that due to the detrimental impact that anxiety has on vocal and respiratory mechanisms that are necessary for performance, vocalists provide a special challenge for clinicians (Clarke, Osbourne & Baranoff, 2020)

#### **What is Music Performance Anxiety?**

MPA "may be described as feelings of apprehension and tension in an evaluative situation" (Harris, 1986, pg 24). The diagnostic and statistical manual for mental disorders (American Psychiatric Association, 2013) lists MPA as a specifier for the diagnosis of social anxiety disorder (SAD), and it has been suggested that MPA may be a particular subtype of performance anxiety (Kenny, 2011). It is very common for many musicians to suffer from MPA as they frequently feel anxious and fearful on stage. This in turn causes an increase in a performer's dread of making mistakes,

heightened stress levels and all of these will contribute and worsen an already elevated level of anxiety (Sušić, 2018). It is also more commonly known as stage fright and tends to impact those who generally would be more susceptible to anxiety (Wilson & Roland, 2002).

Symptoms of MPA can vary as psychological and physiological such as; increased fear, difficulty breathing, rapid heartbeat, tension in their body including their vocal chords, dehydrated mouths and trembling (Stothert, 2012). The intensity of MPA can vary from person to person, which can be due to prior experience with mental health conditions, trauma, and such. This is also important to take into consideration with what techniques to use depending on the student as not every student will react the same to a method. However, some studies, such as Gross & Musgrave (2016) where "2,211 self-identifying professional musicians working across a broad swathe of the UK music industry found that: 71% of respondents believed they had experienced incidences of anxiety and panic attacks" (Gross et al, 2016, pg 5). Other statistics that support this finding is that around 15% and 25% of musicians experience the effects of musical performance anxiety (Steptoe, 2001). Other studies have shown support to this statement of performance anxiety being highly present among performers. Students majoring in Music were asked if they have ever experienced MPA and the results showed that an astonishing 97.1% of these students reported having experienced MPA at some point (Tamborrino, 2001). This shows that MPA is very present in many vocalists and therefore is very important, in my opinion, as an aspiring teacher to be well informed in. It is shown that as a result students who experience MPA, have claimed that their performances had suffered as a result of this. The percentage of the students that claimed this was 76.5% (Tamborrino, 2001). These findings solidify the presence of MPA in a variety of settings. By seeing the presence it can allow me to provide students with the comfort of knowing that they are not the only people experiencing MPA.

### **Physiological impact of MPA:**

When a student is experiencing MPA and the physiological effects begin to take place, the vocal cords have a reaction to the MPA, which in turn will impact vocal performances. While singing we are making use of a lot of our muscles for example

the intercostal muscles between the ribs take on much of the work as we use our diaphragm (McCarther, 2019). Dr. Sean McCarther has written about what we use to sing, and how “many argue that a properly coordinated breathing mechanism is one of, if not the most important components of a vocal technique” (Pg. 1). As the heart rate increases, a shortness of breath tends to occur. Understanding the importance of breathing for singing can allow us to see the correlation between how anxiety can cause breathing to be more difficult and in turn how having a lack of breath control can influence a vocal performance.

When one becomes anxious symptoms, can include:

- Dry Mouth
- Sweating
- Dizziness
- Elevated heart rate
- Shortness of breath (Centre for Vocal Health symptoms, 2023)

In order to understand the negative impact that a symptom of MPA, such as dry mouth, can have on someone's vocal chords it is also important to understand why this symptom would have a negative effect on a performance. When singing it is important to keep our vocal cords hydrated as “dehydration challenges increase the viscous properties of excised vocal fold tissue” (Sivasankar,2010, pg 1). This impacts a vocal performance as when singing hydration is highly important. If the vocal cords are too dry it can cause pain and lack of control for the singer. An example of a study done on the relationship between vocal function and hydration and showed that a decrease in hydration of the vocal folds led to instances of them being “more susceptible to damage” and a “reduction in amplitude of vocal fold motion”. Wang et. al, pg. 2, 2013 explored the relationship between vocal performances and anxiety through a study using a Laryngoscope to observe the Laryngeal reaction to anxiety. In their study it also mentions how while in the midst of “stage fright, the glandular activities of digestion are slowed down or stopped. This causes the salivary glands to stop functioning and the mouth to become dry” (Wang et al, 2013, pg 2) . Without any lubrication of the vocal cords the vocal performance will become negatively impacted as the dryness will create more friction and make it harder to control what you are singing and also put the singer at higher risk of experiencing pain. It is highly

important to maintain control over the laryngeal muscle as the ability to do so helps with “varying dynamic levels, pitches, registers and vocal qualities.” (Emmons, 1988, pg 30).

#### Breathing and MPA:

Furthermore, another common issue with MPA and how it impacts us physiologically and in turn impacts a singer's performance is the difficulty breathing and increased heart rate. Palpitations are experienced as a result of the increased heart rate aimed to provide more oxygen to the muscles (Wilson & Roland, 2002). Due to the adverse impacts that anxiety has on vocal and respiratory mechanisms that are necessary for performance, vocalists provide a special challenge. “Singers experience the complex interrelationships between all systems (Miller, 1996) : (i) The ‘Fuel’, or aerodynamic power necessary to produce a primary sound (achieved by efficient breathing control) ; (ii) the source, generated by converting aerodynamic power into acoustic power (the vibration of the vocal folds); and (iii) the modulator (or acoustic oscillator), to modify and enhance the source energy into singing through articulation.” (Helou et al, 2013, pg 4). Without the right support in the diaphragm and without the ability to control the breath coming in and out of your lungs while performing it can be difficult to successfully do all that is needed. “The singing voice demands continuous adjustments in the lung volume, rib cage volume, and abdominal volume.” (Emmons, 1988, pg 30) If the breath control is lost or becomes impaired as a result of performance anxiety then it is very possible that the very things that depend on these become negatively impacted. There are techniques that teachers use to help in training vocalists to have the proper breathing but if the issue at hand which causes the MPA is not dealt with or focused on improving then there is no guarantee that the vocalist can perform as intended.

Another study reviewed 43 publications, including 10 case reports, 1 demographic study, 11 cross-sectional studies, and 21 research studies on intervention. (Fernholz et al, 2019) Their research was also a review of previously existing literature and gave a clear overview on MPA. They found MPA caused a lack of breath control, tremors, perspiration, a rapid heartbeat and dryness in the mouth (Fernholz et al, 2019). This is relevant to my study as by gaining more insight into the physiological impact of MPA and analysing the pre existing literature on it, I am able to gain a

greater understanding into the effect anxiety has on the body, and therefore know what to focus on in terms of improvement with students.

### **Ethical Boundaries:**

There are a variety of methods that can be used by vocal teachers to help with the improvement of MPA in students. Many techniques are taken from different therapy types. The ones which I will be discussing will, as previously mentioned, will be; ACT, ACC, The Scratch Pad Pop Up Model and CBT. These methods are the ones that stood out as interesting to me and I saw these regularly occurring throughout my research. As I am not a licensed therapist and only an aspiring vocal teacher, I will not be acting as a therapist to the students; however, there are ways in which I can use certain tasks and techniques associated with the therapies that can be of use in a teaching setting. This is important as if I were to use the techniques that are provided in therapy, as if I am a therapist I would be crossing ethical boundaries. Some topics which are considered highly important to maintain as a teacher would be "Utility, Autonomy, Truth, Confidentiality, Avoiding Harm, Justice, and Respecting the rights of others" (Passmore, 2019, pg 9). If I, as a teacher who is not qualified in psychology, were to apply the therapy of ACT or CBT then it would be considered as unethical. As I am not trained in teaching this and as a result, I risk approaching students about it in the wrong manner and creating more problems than solving any. Therefore, it is best to simply take points from the various therapies and apply those to my teachings.

### **Strategies for ameliorating MPA**

#### **Acceptance and Commitment Therapy (A.C.T)**

Acceptance and Commitment therapy is "a newer, empirically based treatment that emphasises mindful acceptance of one's discomfort (ie; MPA) rather than a reduction of one's discomfort." (Hayes et al, 2011, pg 1). ACT focuses on accepting the problem, which in the case of MPA would be the anxiety itself and recognising its existence. It is important to recognise the existence of MPA first before being able to be present in the moment and learning the abilities to deal with the effect of anxiety as it occurs and finding the best ways in which to deal with it. However, it is not intended to focus on the reduction of MPA symptoms, even though it has shown that

using ACT has led to a reduction in anxiety (Bach & Moran, 2008). I personally find this method one of the most intriguing and applicable to how I intend on teaching in the future. I am of the opinion based on personal experience that everyone who experiences anxiety may not be able to fully overcome it but can learn how to accept its presence and through this learn how to still perform as well as they wish. ACT aims to impart to those who need it with six crucial steps that are essential for psychological adaptability. These six core processes are: “acceptance and willingness to come into contact with one’s internal experiences, contact with the present moment, defusion (ie. taking an observer’s perspective) from thoughts and feelings, experiences the self as contextual rather than a fixed entity, knowing what matters by identifying one’s values, and regularly committing to doing what matters to oneself.” (Hayes et al, 201, pg 2). By using these processes, it is possible to aid in the amelioration of MPA. For example, the diffusion process aims to separate the person from their feelings, convictions, memories, and self-stories and to establish psychological space between them and all of the aforementioned (Gillandes et.al; 2014). Through creating this, it can ease the gaining of a more unbiased perspective of the issues and help in providing a clearer view on how to improve on their anxiety.

These six points are all part of what is called the ACT Hexaflex (Appendix 1) By using the Hexaflex one can guide students through the process of accepting the presence of the MPA and can provide a basic guideline for progress. As a vocal teacher, who does not have any psychological training, it can be useful to use the ACT Hexaflex as a guideline for the lessons with students that suffer from MPA. This is due to focusing on maintaining the ethical boundaries. If I attempt to use ACT as a therapist, I put my students at risk of not being handled correctly and leading to a worsening of anxiety. By going through some of the processes step by step, it could help the student become more aware of the anxiety they are experiencing in the moment, and then learn how best to improve on their vocal performance regardless of the MPA.

ACT has been used in a vocal teaching setting and has demonstrated its potential at helping students improve on their MPA (Shaw et al, 2020). It was discovered that ACT being used in a teaching environment was effective with the student involved in the study where the researchers used aspects of ACT to improve upon MPA. A

technique that can be taken from ACT and used in a teaching environment, would be one which was cited in a paper written by David Juncos in 2015. A “participant was guided to practise expressing himself in various ways whenever his MPA would arise, such as making eye contact or joking with the audience, improvising more, playing more loudly and smiling” (Juncos, 2015, pg 16). This can show that by recognising one's anxiety and facing it head on, in some cases it can possibly lead to singing more comfortably and confidently. I can see myself using this technique with future students as I consider it a big learning moment to be able to face the fears and open up to an audience to the point where one feels comfortable enough to laugh with them. Through learning to embrace the mistakes it can help in opening up the path of improvement. Possibly by creating a rapport with the audience it can provide a greater sense of acceptance and in return decrease the anxiety of being judged.

Another technique that can be used in association with ACT is mindfulness. For example, when a student is experiencing MPA and their heart rate increases which in turn influences their breathing, it is important to achieve the balance between relaxation and allowing the breath to fully recover naturally while improving agility and power in the abdominal muscles. The singer's muscles shouldn't tense excessively during inhaling (Bunch, 1995). By becoming aware of their anxiety and how it is affecting their breathing, students can learn to pay attention to it and how to work with it so that it does not negatively influence their vocals. Understanding how breathing is impacted by anxiety and how that in turn impacts a vocal performance, being fully aware and mindful of it in the moment, can help me as an aspiring teacher, to provide students with the same knowledge and help find the best ways to avoid the vocal performance being negatively impacted.

However, as ACT is a therapy I believe the alternative Acceptance and Commitment Coaching (ACC) and Acceptance and Commitment Treatment is more appropriate in the setting in which I will be conducting my teaching in. ACC and Acceptance and Commitment Treatment differs from ACT in that it is a non clinical variation of it (Mahony et al, 2022). Similarly to ACT it promotes the acceptance of the reality and the symptoms that the student is experiencing. A paper written by Shaw, et al in 2020 “investigated an alternative intervention model, in which a clinical psychologist with MPA expertise trained a singing teacher with no training or education in

psychotherapy to use evidence-based coaching model, Acceptance and Commitment Coaching (ACC), with a student vocalist with problematic MPA” (Shaw et al, 2020, pg 1). This study is highly valuable to my learning as it perfectly bridges the gap of ACT and teaches students how to deal with MPA without being a qualified therapist and helping teachers avoid crossing any ethical boundaries. The work that was done here, was done in order to improve on the preexisting six hexaflex processes. Exercises done for this study with a student referred to as “TS” were: “a body meditation to promote mindfulness, a thought labeling exercise to promote defusion, a meditation to promote acceptance of his MPA-related thoughts and feelings identification of his values and eliciting a commitment to engage with his values while performing.” (Shaw et al, 2020, pg 1) In future lessons with my students I would encourage regular meditation practice, both during class and as homework.

#### GROW Model:

Not only did Shaw focus on mindfulness but the study also included “content from the GROW model” (Shaw et al, 2020, pg 5). The GROW model is a coaching framework that can be applied to improving the impact of MPA on vocalists. GROW stands for “Goal, Reality, Options and Will” (Whitmore,1992). Using this can provide a manner in which a teacher and the student can monitor their progress and keep track of everything. Moreover, by doing this it can help find what is and is not working for the student and in my opinion, help create a thorough and well worked out plan of action to improve MPA. In Shaw, Juncos and Winter’s study they also mention the direct feedback that they received from the student who experienced anxiety and used the methods of ACC. He stated that the ACC intervention provided a “significant shift in his thinking” and that he can “now accept that ‘it’s OK to feel anxious, [to] work with it rather than fight it” (Shaw et al, 2020, pg 8). This further solidifies the possible benefits of ACC for the students and how it can be of benefit to how I teach in the future. ACC can be considered relevant to my study on the physiological impact of MPA and the methods which can ameliorate it as in my opinion, it seems as if it would be a useful technique where mindfulness and such is still taken into consideration but also avoids the risk of crossing ethical boundaries. By creating a guideline to focus on by using the GROW model and focusing on the six Hexaflex processes, it can make it more possible to pinpoint what is impacted the

most with each individual student. This is relevant as it helps provide the students and myself a guideline on recognising their anxiety and building a plan and aims on what to improve on. In my opinion, by doing so it can help to provide a sense of structure to the student so that they can see their progress. Additionally, through mindfulness and the willingness to face their anxiety, it can help students focus on how to calm their heart rate through focusing on how their body is responding and how to better control their breathing to where their performance won't be negatively impacted.

However, as there are pros to things there will always be some cons. Many forms of MPA are as a result of past trauma or deeply rooted trauma; "In these cases, therapies that focus more on the root of maladaptive thinking and behavior patterns may be more suitable. This includes schema and psychodynamic therapies." (Jensen, 2022) Furthermore, in terms of ACC, the study mentioned previously by Shaw et al, 2020 it is the only one I was able to find, and according to them is the first investigation into the efficiency and impact of a evidence based coaching model, ACC, to be utilised as an MPA approach with a student vocalist by a singing teacher who has no prior training or qualifications in psychotherapy (Shaw et al, 2020). As this practice is so new and there is a lack of literature on it, it can be debated that it is not possible to conclude if ACC is an effective option for MPA. Without having a larger number of students that have used ACC as a way of combating MPA it is difficult to come to the conclusion that ACC is conclusively the best option. As they mention themselves, "future research is needed to address this study's limitations before ACC is considered efficacious and/or effective as an MPA intervention" (Shaw et al, 2020, pg 11). This is relevant as I can use techniques mentioned in the use of ACC such as mindfulness and the GROW method while maintaining the professionalism of not crossing any ethical boundaries. It also helps provide me with the information that it may not be the best option for every student as the research is so limited. Therefore, I will use parts of ACC, particularly the GROW method to help maintain a guideline but I will also remain open and acknowledge that other tactics may suit other students better.

## **The Scratch Pad Pop Up Method**

The Scratch Pad Pop up Model (Appendix 2) is a research based method which focuses on working memory and intrusive thoughts (Chai et al, 2018). Working memory is more focused on objective actions that require the control and retention of information to guarantee successful task completion(Chai et al, 2018). Whereas intrusive thoughts are when someone suddenly has an odd and or unsettling thought or an unsettling image that seems to appear out of nowhere. (Bilodeau, 2021) By understanding the difference in these thoughts it can help with the explanation of the Scratch Pad Pop Up Method and how it can help with MPA. The scratch pad section refers to the working memory and the pop up is for any intrusive thoughts (Robertson et al, 2010). When conducting a performance, as a musician in general but in this case as a vocalist, the singer has to remember the notes which they are expected to sing, the lyrics of the song and also ensure that they are using the correct techniques and changing dynamics and many other factors in order to provide a strong performance. The need to remember everything that needs to be done is what takes place in the part of our working memory (Roberston et al, 2010). Having a fear of making a mistake can interrupt the train of thought and focus and therefore the performance which is where the Scratch Pad Pop Up method can be used. The method's intention is to help provide the student with organising their thoughts. The Scratch Pad Pop Up Method when broken down step by step consists of 3 steps. These steps are:

- Step 1. "Present the scratch pad concept"
- Step 2. "How the scratch pad works"
- Step 3. "Pop-ups"

(Robertson et al, 2010, pg 32)

Step 1 includes having the students consider what they are expected to remember/perform. "It may help to have them think about what instructions they would give to tell someone else."(Robertson et al, 2010, pg 32). The students are expected to make a list of what is intended to happen during their performance and what is expected of them. For example, writing down, remembering lyrics, change in dynamics in certain parts and to mainly consider how they would explain their performance step by step to someone else as if they themselves were teaching.

Here it is important to begin with the student acknowledging what is expected of them. By taking all of this into consideration it can help provide them a sense of organisation which can be highly useful in a situation where anxiety is dominating one's thoughts and a lack of order is present.

Step 2 is to “point out that the scratch pad is not very big, and if there is too much written on it, we may not understand any of it.”(Robertson et al, 2010, pg 32). This can be interpreted to show the students to try and organise their problems and one by one be able to erase those that are no longer relevant/a problem to them anymore. By providing a sense of organisation and clearly showing them visually that if there is not enough space that the boy becomes overwhelmed, which is a strong metaphor for how overwhelmed their minds may end up being by trying to think of too many things at once. Through showing the students that only the most important things can be placed in the box it may help show them that there isn't as much as they think of that they need to consider during a performance. It may also help provide them with a sense of understanding of, if anything is overwhelmed with too much, that it can not function.

Furthermore, Step 3 is best compared to a pop up window on a computer. They “take up space, are very annoying, and make it hard to see other information” (Robertson et al, 2010, pg 32). This can teach the students that they will persist as long as we pay mindful attention to them. By getting used to the reality of intrusive thoughts occurring, students can learn to acknowledge that they happen but also realise that they can ignore them if they try not to pay too much attention to them. The idea behind the model is primarily to provide a way for students to organise their thoughts and help them work through those which are most present in their minds. Through providing organisation it can help calm the students down and give them a sense of security and guidance for their performances. This is relevant as it could be a helpful method that I can use during my future lessons. Using this technique with someone suffering from MPA can possibly help reduce the anxiety by organising their thoughts instead of having them invade their thoughts and overtake their ability to perform.

## **Cognitive Behavioral Therapy (CBT)**

Moreover, the final method which I will be analysing in the search for the best methods to use to help decrease the impact of MPA on a student is CBT. CBT is one of the most commonly and highly researched of all the methods mentioned throughout the study. CBT is defined as being a combination of cognitive and behavioural therapies, driven by concepts from applied science (Otte, 2022). It is primarily based on the utilisation of psychological and educational interventions that focus on the changing of negative thinking habits and actions (Kenny, 2006). CBT is most likely the most common method to deal with performance anxiety and even though there is no definitive consensus on which therapy is the most effective for MPA, CBT does have the largest amount of research and support in literature (Einstein, 2007). MPA showed significantly lower levels after having done CBT-based treatment (Juncos et al, 2015). CBT focuses on a multitude of core principles including:

1. Psychological problems are based, in part, on faulty or unhelpful ways of thinking.
2. Psychological problems are based, in part, on learned patterns of unhelpful behavior.
3. People suffering from psychological problems can learn better ways of coping with them, thereby relieving their symptoms and becoming more effective in their lives (Society of Clinical Psychology, 2017).

CBT intends on focusing on changing one's thinking patterns and facing any issues and anxiety head on. There are some techniques which are used in CBT that can be translated into the lessons with a student who suffers from MPA. Naturally there are limitations as a teacher with no training or education in psychology and it is always important to remain aware of the ethical lines of being a teacher. However, a technique such as "using role playing to prepare for potentially problematic interactions with others" (Society of Clinical Psychology, 2017) could be considered useful to include in lessons. This can be quite useful to use with a student as by practising and reenacting the situation which causes the MPA with the student, the hope is that over time they can become desensitised to the anxiety. This however, does run the risk of crossing ethical boundaries as having a student relive a trauma

can possibly lead to further problems. To be sensitive it is always good to openly discuss it with the student prior to attempting anything.

Hunnicutt and Winter mention a technique they used in their article on where they had a student go through these steps and show how it can help with MPA:

1. The singer/student is asked to perform a piece in lessons with only the two of you present.
2. The teacher invites or, the student can be asked to invite one additional person into a lesson for a performance. This person can be a close friend, a family member or even possibly a fellow student, it is all dependent on what the student feels most comfortable with.
3. Finally, the teacher then provides the student with the homework assignment of performing a piece in front of their family and or friends at home, using a recording of the accompaniment (Hunnicutt & Winter, 2011).

Continuously increasing the size of the audience will in turn help the student adapt to the crowds as they grow and provide them with the tools of performing with less anxiety. This is due to the act of repetition where the student can adapt and become used to the situation of performing in front of an audience. This technique can be useful as a teacher as, by providing a safe environment in which my students can slowly face their MPA, there is the hope that it will decrease over time or that the student will at the very least feel calmer and more confident. Even though there has been “Numerous research studies suggest that CBT leads to significant improvement in functioning and quality of life.” (Society of Clinical Psychology, 2017) as a teacher who is not a certified psychologist there are only elements that can be applied to lessons and not the act of the therapy itself.

Further techniques that are commonly used in CBT and considered some of the most essential to CBT (Ackerman, 2017) that can safely be used in a teaching environment are “journaling... play the script until the end... relaxed breathing and muscle relaxation” (Ackerman, 2017). These can be useful and safe to use in a lesson without risking crossing any ethical boundaries. Journaling can help a student write down all their feelings and thoughts and by doing so they are acknowledging their fears which can then allow them to seek out what their anxiety is primarily about

and together the teacher and student can find the best way to improve upon it. By acknowledging this and the fear of the worst possible outcome, as a teacher I could help the student see that even if their idea of the worst possible outcome were to happen, that they can always manage to grow and improve and help show them that it is normal to fail and it will only help improve themselves in the end.

Moreover, relaxed breathing and muscle relaxation, similar to techniques used in ACT and ACC can also possibly help in reducing the impact of MPA on a student. Through calming themselves and fully relaxing, through a simple meditation video online or focusing on their breathing and relaxing themselves muscle by muscle, the student can hopefully be led to a place of peace and calmness that they can try to use to their advantage during their moments of anxiety. If they can gain control of their breathing and their muscles then they should be able to control how they perform. These techniques are relevant to my study as they all show how I could potentially use them to reduce the impact of MPA on any future students and help in my aim to provide them the techniques they need to perform to the best of their ability. However, as CBT can only properly be carried out by a therapist in a therapy session it is important that I ensure to maintain that understanding and only use techniques which are commonly used in CBT to inspire my teachings.

There are, however, possible limitations to the use of CBT in ameliorating MPA. The various studies which have been carried out all “vary greatly in respect to control procedures, which range from waitlist, alternative treatments, and placebo interventions... while some studies did not include any control groups” (Otte, 2011, pg 414). This can be problematic as without having any control groups, it can prove difficult to have the ability to see if any progress has been made. It is important to have a control group as the extent of the treatment can be simply measured without interference from any confounding variable (Stolle, 2022)

As CBT has mostly been studied by professional psychologists in controlled environments, it is difficult to say how well CBT works in an educational environment. As previously stated, maintaining the ethical boundary of not acting as a therapist to a student and only using CBT techniques as inspiration in a vocal lesson is extremely important. As I could not find too much on using CBT in a setting where a

vocal teacher is trying to help their students improve on their MPA, I am unable to come to a definitive conclusion that it is the best method. However, I do find merit in many of the techniques that it uses and plan on utilising them myself with future students.

### **Conclusion:**

In conclusion, vocal teachers have a wide range of tools at their disposal to best improve performance and MPA from within their lessons. Based on the literature I have read throughout this study I have found a variety of pros and cons to each method that could potentially ameliorate the effect of MPA on vocalists. With this review I have attempted to discuss potential and supportive ways to combat the impact of MPA. Furthermore it shows the importance in facing the anxiety alongside the student and by being more knowledgeable on the variety of methods out there we can be the best teachers we can be for them and adapt our lessons based on what works best for the individual. There are many physiological impacts of MPA which in turn impact a vocalists performance, some of the most important ones being difficulty breathing and the salivary glands drying. I find that the best approach, for my future teachings, would be to use a combination of all the methods provided. I went into the study primarily interested in ACT as a result of some prior knowledge on the therapy. However, I find myself drawn much more to ACC and particularly using the GROW model. By creating an outline on what needs to be improved and by providing structure and a goal to work towards, I believe it can help provide a sense of stability for the student. By focusing on mindfulness and being aware of one's breathing the student can learn to be aware of the impact their MPA is having on them physiologically and can find the best ways to combat it. There are however, aspects of CBT such as journaling which I find highly appealing to use with my students and also certain points of using the Scratch Pad Pop Up method. Even Though I did find the Scratch Pad Pop Up method has its merits, such as helping a student with visualising their anxiety, I do not intend on using it too often unless a student of mine seems to respond better to visual learning. I intend on always maintaining an open mind to techniques and on continuing my research into the physiological impact of MPA on singers and the many ways in which it can be

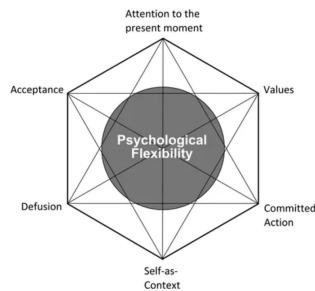
helped. I am eager to see where my continued study of this subject and my career as a teacher will take me and help me improve my students MPA.

## Appendix:

1.

Martinez, J. (2022, August 15). *The Hexaflex & The Matrix — Therapy through the ACT Matrix*. Therapy Through the ACT Matrix.

<https://www.theactmatrix.com/pages/hexaflex>



2. Robertson, D. U., & Eisensmith, K. E. (2010). Teaching Students about Performance Anxiety: The Scratch Pad Pop-Up Model. *Music Educators Journal*, 97(2), 31–35. <http://www.jstor.org/stable/40960200>

**FIGURE 1**

**The scratch pad**



## References:

Ackerman, C. E. (2017, March 20). CBT Techniques: 25 Cognitive Behavioral Therapy Worksheets. Positive Psychology . Retrieved September 7, 2023, from <https://positivepsychology.com/cbt-cognitive-behavioral-therapy-techniques-worksheets/>

Bach, P. A., & Moran, D. J. (2008). ACT in practice: Case conceptualization in acceptance and commitment therapy. New Harbinger Publications.

Barefield, R. (2012). Fear of Singing: Identifying and Assisting Singers with Chronic Anxiety Issues. Music Educators Journal, 98(3), 60–63.  
<https://doi.org/10.1177/0027432111434588>

Bassot, B. (2013). The Reflective Journal. Basingstoke: Palgrave

Bilodeau, K. (2021, October 1). Managing intrusive thoughts. Harvard Health Publishing, Harvard Medical School . Retrieved September 7, 2023, from <https://www.health.harvard.edu/mind-and-mood/managing-intrusive-thoughts>

Bunch , M. A. (1995). Dynamics of the Singing Voice (3rd ed.) [EBook]. Springer Vienna. <https://doi.org/10.1007/978-3-7091-2065-1>

Center for Vocal Health. (n.d.). Stage Fright (Performance Anxiety) and the effect on Vocal Muscles. Retrieved September 7, 2023, from <https://www.centerforvocalhealth.com/blog/stage-fright-vocal-muscles>

Chai, W. J., Hamid, A. I. A., & Abdullah, J. M. (2018, March 27). Working Memory From the Psychological and Neurosciences Perspectives: A Review . Frontiers Psychology, Section Cognitive Science, 9, 1.  
<https://doi.org/10.3389/fpsyg.2018.00401>

Clarke, L. K., Osbourne , M. S., & Baranoff, J. A. (2020, May 29). Examining a Group Acceptance and Commitment Therapy Intervention for Music Performance Anxiety in Student Vocalists . Frontier Psychology , 1–2.  
<https://doi.org/10.3389/fpsyg.2020.01127>

Dewey, J (1983) *Experience and Education*. New York: Collier Books  
Keane, J. (2002, November). *Coaching for Performance* (3rd ed.) 2002 John Whitmore.  
*Coaching for Performance* (3rd ed.). London: Nicholas Brearley Publishing 2001.  
180 pages, ISBN: 1 8578 8303 9 £12.99 (paperback). *Industrial and Commercial Training*, 34(6), 237–238. <https://doi.org/10.1108/ict.2002.34.6.237.2>

Einstein, D. A. (2008, October 24). *Innovations and Advances in Cognitive Behavior Therapy*. Australian Academic Press. 4

Ely, M. C. (1991). Stop Performance Anxiety! *Music Educators Journal*, 78(2), 35–39. <https://doi.org/10.2307/3398258>

Emmons, S & School for Music. (1988). Breathing for Singing. *Journal of Voice*, 2(1), 30–35.

Fernholz, Mumm, L. M., Plag, Noeres, Rotter, Willich, S. N., Ströhle, Berghöfer, & Schmidt. (2021). Performance anxiety in professional musicians: a systematic review on prevalence, risk factors and clinical treatment effects. *Psychological Medicine*, 49(14), 2287–2306. <https://doi.org/10.17169/refubium-32666>

Ferretti, M. Gassner, R. Wang, Z. Perera, P. Deschner, J. Sowa, G. Salter, R.B. Agarwal, S. ; Biomechanical Signals Suppress Proinflammatory Responses in Cartilage: Early Events in Experimental Antigen-Induced Arthritis1. *J Immunol* 15 December 2006; 177 (12): 8757–8766. <https://doi.org/10.4049/jimmunol.177.12.8757>

Folk, J. (2021, May 19). Voice Changes Anxiety Symptoms (M. Folk, Ed.). Anxiety Centre . Retrieved September 7, 2023, from <https://www.anxietycentre.com/anxiety-disorders/symptoms/voice-changes/>

Gillanders DT, Bolderston H, Bond FW, Dempster M, Flaxman PE, Campbell L, Kerr S, Tansey L, Noel P, Ferenbach C, Masley S, Roach L, Lloyd J, May L, Clarke S, Remington B. The development and initial validation of the cognitive fusion questionnaire. *Behav Ther*. 2014 Jan;45(1):83-101. doi: 10.1016/j.beth.2013.09.001. Epub 2013 Sep 18. PMID: 24411117.

Greene, D., & Savage, D. (2009). An Answer to Performance Anxiety. *American Music Teacher*, 58(4), 26–29. <http://www.jstor.org/stable/43543376>

Harris, S. R. (1986). A Psychologist Views Musical Performance Anxiety. *American Music Teacher*, 35(3), 24–40. <http://www.jstor.org/stable/43541063>

Hayes, S. C., Levin, M. E., Plumb-Villardaga, J., Villatte, J. L., & Pistorello, J. (2013, June). Acceptance and Commitment Therapy and Contextual Behavioral Science: Examining the Progress of a Distinctive Model of Behavioral and Cognitive Therapy. *Behavior Therapy*, 44(2), 180–198. <https://doi.org/10.1016/j.beth.2009.08.002>

Help Musicians UK, Gross, S. A., & Musgrave, G. (2016, November). Can Music Make You Sick? Music And Depression. A Study into the Incidence of Musicians' Mental Health. Part 1 Pilot Survey Report. In University of Westminster / Music Tank. MusicTank Publishing / University of Westminster . Retrieved September 7, 2023, from [https://westminsterresearch.westminster.ac.uk/download/4196ca464d2cc76db38b7ab138837c26cd616ff8cdd46bffe2e82ab26b454bbe/832310/Gross\\_Musgrave.pdf](https://westminsterresearch.westminster.ac.uk/download/4196ca464d2cc76db38b7ab138837c26cd616ff8cdd46bffe2e82ab26b454bbe/832310/Gross_Musgrave.pdf)

Jensen , A. V. (2022, December 20). Acceptance and Commitment Therapy (ACT): The Pros and Cons. *Improvement Savvy*. Retrieved September 7, 2023, from <https://www.improvementsavvy.com/act-pros-and-cons/>

Juncos, D. G., Cardaciotto , L., Spokas, M., Falcone, D. J., Morgan, M. C., & Gent, L. (2015, August). Acceptance and Commitment Therapy for the treatment of musical performance anxiety: A single subject design. *La Salle University / Research Gate*. <https://doi.org/10.13140/RG.2.1.4767.2164>

Kenny, D. T. (2011, June 1). *Defining music performance anxiety*. Oxford University Press eBooks. <https://doi.org/10.1093/acprof:oso/9780199586141.003.0027>

Kenny, D. T. from the Australian Centre for Applied Research in Music Performance Anxiety, Sydney Conservatorium of Music, The University of Sydney, New South Wales. (2004, January). *Treatment Approaches for Music Performance Anxiety: What Works?* *Music Forum*, 1–3. [https://www.researchgate.net/publication/237413984\\_Treatment\\_Approaches\\_for\\_Music\\_Performance\\_Anxiety\\_What\\_works](https://www.researchgate.net/publication/237413984_Treatment_Approaches_for_Music_Performance_Anxiety_What_works)

Kenny, D. T., & Osborne, M. S. (2006, January 1). Music performance anxiety: New insights from young musicians. *Advances in Cognitive Psychology*, 2(2), 103–112. <https://doi.org/10.2478/v10053-008-0049-5>

Korovin, G. S. (n.d.). Why Your Singing Voice Is a Barometer of Your Emotional State. Gwen S. Korovin, M.D, Voice Care, ENT. Retrieved September 7, 2023, from <https://korovinmd.com/singing-voice-barometer-emotional-state/>

Machi, L. A., & McEvoy, B. T. (2012). *The Literature Review Six Steps to Success* (2nd ed.). SAGE, 10

Mahony, S. E., Juncos, D. G., & Winter, D. (2022, March 18). Acceptance and Commitment Coaching for Music Performance Anxiety: Piloting a 6-Week Group Course With Undergraduate Dance and Musical Theatre Students. *Frontiers in Psychology*; Frontiers Media. <https://doi.org/10.3389/fpsyg.2022.830230>

Martin Guha (2014), "Diagnostic and Statistical Manual of Mental Disorders: DSM-5 (5th edition)", *Reference Reviews*, Vol. 28 No. 3, pp. 36-37. <https://doi.org/10.1108/RR-10-2013-0256>

McCarther , S. (2018). A Review of the Breathing Mechanism for Singing: Part 1: Anatomy . Rider University . <https://www.rider.edu/sites/default/files/files/vthc-a-review-of-the-breathing-mechanism-for-singing-part2.pdf>

Miller, R. (1996, September 19). Relax and Sing? *On The Art of Singing*, 253–255. <https://doi.org/10.1093/acprof:osobl/9780195098259.003.0083>

Moral-Bofill, L., López de la Llave, A., Pérez-Llantada, M. C., & Holgado-Tello, F. P. (2022, June 17). Development of Flow State Self-Regulation Skills and Coping With Musical Performance Anxiety: Design and Evaluation of an Electronically Implemented Psychological Program. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.899621>

Osborne, M. S., & Kirsner, J. (2022, March 18). Music Performance Anxiety. *The Oxford Handbook of Music Performance*, Volume 2, 203–231. <https://doi.org/10.1093/oxfordhb/9780190058869.013.11>

Otte, C. (2011, December 13). Cognitive behavioral therapy in anxiety disorders: current state of the evidence. *Dialogues in Clinical Neuroscience*, 13(4), 413-2

Parncutt, R & McPherson, G. E. (2002, April 18). *The Science and Psychology of Music Performance: Creative Strategies for Teaching and Learning* (1st ed.). Oxford University Press.

Passmore, J. (2009) 'Coaching ethics: making ethical decisions- novices and experts'. *The Coaching Psychologist* 5 (1) 9

Robertson, D. U., & Eisensmith, K. E. (2010). Teaching Students about Performance Anxiety: The Scratch Pad Pop-Up Model. *Music Educators Journal*, 97(2), 31–35.  
<http://www.jstor.org/stable/40960200>

Salisbury, F. (2020.). *The Importance of Reading From a Variety of News Sources*. The Wrangler.

[https://ylhstthewrangler.com/22390/features/the-importance-of-reading-from-a-variety-of-news-sources/#:~:text=According%20to%20Juliana%20Neemeh%20\(10,sources%2C%20people%20can%20be%20more](https://ylhstthewrangler.com/22390/features/the-importance-of-reading-from-a-variety-of-news-sources/#:~:text=According%20to%20Juliana%20Neemeh%20(10,sources%2C%20people%20can%20be%20more)

Shaw, T. A., Juncos, D. G., & Winter, D. (2020, May 28). Piloting a New Model for Treating Music Performance Anxiety: Training a Singing Teacher to Use Acceptance and Commitment Coaching With a Student. *Frontiers in Psychology Sec. Performance Science*, 11, 1–11. <https://doi.org/10.3389/fpsyg.2020.00882>

Sivasankar, M., & Leydon, C. (2010, June). Speech Therapy and Rehabilitation. The role of hydration in vocal fold physiology . *Current Opinion in Otolaryngology & Head and Neck Surgery*, 18(3), 171–175.  
<https://doi.org/10.1097/MOO.0b013e3283393784>

Stephoe, A. (2001). Negative emotions in music making: The problem of performance anxiety. In P. N. Juslin & J. A. Sloboda (Eds.), *Music and emotion: Theory and research* (pp. 291–307). Oxford University Press

Stohtert, W. N. (2012). Music performance anxiety in choral singers. *Can. Music Educ.* 54, 21–23.

Sušić, B. B. (2018, June). The Relation Between Pedagogical Approaches in Music Education and Students' Performance Anxiety. *Revija Za Elementarno Izobraževanje*, 11(2), 143–157. <https://doi.org/10.18690/rei.11.2.143-157.2018>

Tamborrino, R. A. (2001). An examination of performance anxiety associated with solo performance of college-level music majors. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 62(5-A), 1.

What is Cognitive Behavioral Therapy? (2017, July 31). <https://www.apa.org>.  
<https://www.apa.org/ptsd-guideline/patients-and-families/cognitive-behavioral>

Wilson, G. D., & Roland, D. (2002, April 18). Performance Anxiety. *The Science & Psychology of Music Performance*, 47–61.  
<https://doi.org/10.1093/acprof:oso/9780195138108.003.0004>