

REVIEW OF THE CURRENT UNDERSTANDING OF MUSIC
PERFORMANCE ANXIETY, ITS COMORBIDITIES,
AVAILABLE TREATMENTS AND
THEIR IMPLEMENTATION

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Lucy Smith
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Examining Committee Members:

Dr. Edward Latham, Advisory Chair, Department of Music Studies
Dr. Matthew Brunner, Department of Instrumental Studies
Dr. Michael Klein, Department of Music Studies
Dr. Michael Zanders, External Member, Department of Music Therapy

ABSTRACT

The mental and physical health issues faced by musicians are multifaceted and generally poorly understood by most musicians, teachers and medical professionals. This monograph will provide students, educators, and institutions with a model to implement a proactive physical and mental health plan. If followed this should ensure a more positive and supportive environment for student musicians. Not only will this help students during their studies, but it will also equip them with resilience as they pursue their careers.

Effectively incorporating health education and support within our education system will also benefit this generation of musicians, and every subsequent one. This will lead to a healthier environment within the music profession.

In an ideal world, every music school would have a specialized team of health professionals to help address the issues faced by students, including Music Performance Anxiety and its comorbidities, such as anxiety and depression, along with Performance-Related Musculoskeletal Disorders. These common problems, many of which are inextricably linked to their chosen profession, are often dealt with poorly or ignored completely. As musicians, we study our instruments with specialists, at centers of excellence, doing research into the schools we apply for to get the best fit and highest level of education possible. The same priority should be given to our physical and mental health. Specialized treatment is available to musicians often at a prohibitive cost, creating barriers for many students. By introducing personalized care for music students within educational institutions, these resources become available to everyone who needs them.

Dedicated to every musician
who has struggled with their
mental or physical health and
not known where to turn.

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CHAPTER 1

INTRODUCTION

Twenty years ago, Stewart-Brown et al. established that the health of students in higher education is lower compared to their peers who are not.¹ In a more recent study, it was determined that the emotional health of students is a greater issue than that of their physical health.² This is not specific to one country but would appear to be a problem all over the world.³ What is concerning for those in the field of music is that music students in higher education report significantly worse mental and physical health than their peers studying other subjects.⁴ Where music is often thought of as a benefit to overall health and well-being, both physically and mentally, it would appear that it can be the opposite for those who are studying the subject.⁵

In 2009, Nagel's article "How to Destroy Creativity in Music Students" for the *Medical Problems of Performing Artists* journal advocates the need for emotional and psychological support in music schools:

I have long recommended and supported the establishment of psychological and physical interdisciplinary programs and courses in the curriculum that are equal in importance to private lessons, music theory, music history, and academic courses. These courses would include study in the psychology of stage fright, physiology of the performer, professional networking, audition strategies, career management (i.e.,

¹ Sarah Stewart-Brown et al., "The health of students in institutes of higher education: an important and neglected public health problem?," *Journal of Public Health* 22/4 (2000): 1.

² Rosie Perkins et al., "Perceived Enablers and Barriers to Optimal Health among Music Students: A Qualitative Study in the Music Conservatoire Setting," *Frontiers in Psychology* 8/968 (2017): 2.

³ Ibid.

⁴ Liliana S. Araújo et al., "Fit to Perform: An Investigation of Higher Education Music Students' Perceptions, Attitudes, and Behaviors toward Health," *Frontiers in Psychology* 8/1558 (2017): 1.

⁵ Edgar Voltmer, "Physical and Mental Health of Different Types of Orchestra Musicians Compared to Other Professions," *Medical Problems of Performing Artists* 27/1 (2012): 1.

interviewing, resume writing), nutrition, and exercise. The courses would be team-taught by interdisciplinary faculty and invited guests.⁶

Increasingly, many music education institutions have been implementing health and well-being courses in their curricula in an attempt to help their students. A one-year longitudinal study focusing on fatigue, depression and stage fright in first year music students, found that all three issues increased significantly during the course of the study.⁷ This demonstrates that music students are not receiving the correct support to enable them to thrive.

It is widely accepted that musicians experience similar lifestyles to those of athletes partly due to the long hours of daily training, but also due to the need to perform at a consistently high level in order to achieve success.⁸ However, there are significant differences in the approaches in how to deal with and overcome injuries and adversity as well as maintain high standards in performance.

Within sport, the rush of adrenaline before an event is expected and often desired, and when harnessed well, can lead to an increase in performance within competitions or games. Anecdotally, Usain Bolt said he could only run at his world record speeds within competition because of the thrill of competing and the adrenaline rush he got from the crowd's response.⁹ From a scientific perspective the Yerkes-Dodson model shows that

⁶ Julie Jaffee Nagel, "How to Destroy Creativity in Music Students: The Need for Emotional and Psychological Support Services in Music Schools," *Medical Problems of Performing Artists* 24/1 (March 2009): 17.

⁷ Horst Hildebrandt, "Increment of Fatigue, Depression, and Stage Fright During the First Year of High-Level Education in Music Students," *Medical Problems of Performing Artists* 27/1 (2012): 43.

⁸ Clifton Chan, Tim Driscoll and Bronwen Ackermann, "The usefulness of on-site physical therapy-led triage services for professional orchestral musicians - a national cohort study," *BMC Musculoskeletal Disorders* 14/1 (2013): 2.

⁹ Dan Quarrell and Ben Snowball, "Usain Bolt: The Secrets of the Man who Changed Sport Forever," Eurosport, May 28, 2020, https://www.eurosport.com/athletics/world-championships/2017/usain-bolt-the-secrets-of-the-man-who-changed-sport-forever_sto6268467/story.shtml

everyone needs a certain amount of arousal to be able to perform at their peak.¹⁰ This will be discussed in greater detail in Chapter 2. Within sport there is no stigma attached to this state of increased adrenaline and many athletes are trained in how to deal with it. Often an athlete has access to a team of specialists to address any concerns they might have from the beginning of their career. This can include sports performance psychologists, physical therapists, coaches, and nutritionists. Rather than this method of a comprehensive support system only being used by the elite, this approach to addressing the day-to-day issues faced by athletes is seen throughout their training, including within youth and university programs. Conversely in music, the overall attitude tends to be a desire to avoid excessive adrenaline and nervousness, equating it with poor performance.¹¹

There is an expectation of a small amount of nerves within music performance. Many students have heard a version of the phrase: “if you are not nervous then you do not care enough and you will not play well.” However, there is also an expectation that the audience should not be able to tell that the performer is nervous, creating a desire to be able to hide or suppress it to a certain level.

Where music and sport align, as well as with society as a whole, is the stigma attached to mental health and career-threatening injuries. While there is support for those in sport to deal with day-to-day physical complaints and performance issues, there is still

¹⁰ Dianna T. Kenny, *The Psychology of Music Performance Anxiety* (Oxford: Oxford University Press, 2011), 140.

¹¹ Noa Kageyama, email message to author, February 28, 2021.

a stigma attached to mental health problems faced by athletes.¹² By contrast, within music there unfortunately seems to be a stigma attached to anything negative that a musician may face throughout their career.¹³ By providing better support structures and education about mental and physical health within music courses, including information on the challenges regularly faced by musicians, the stigma will be reduced. In theory, this would help prevent students from pushing through mental and physical injuries because they are scared of falling behind and encourage them to feel more empowered to ask for help when needed. However, to provide this support sustainably, there needs to be a database of resources, evidence-based support and education in place.

The issues faced by music students receive inconsistent attention depending on the country in which the student is studying and the school they attend. Some schools are starting to include health and well-being initiatives within their programs. Usually, this is in the form of an optional class or elective, such as Alexander Technique or Yoga for Musicians, that is only available to a limited number of students each semester. Another variation is for music schools to have health and wellness days throughout the year. Again, these can be optional, and when students are constantly encouraged to practice more and are in a competitive environment, many see these days or classes as wasted time and consequently opt out. Unless teachers and advisors recognize that these courses are beneficial and necessary, and create space for them in the course load, then many

¹² N James Bauman, "The Stigma of Mental Health in Athletes: Are Mental Toughness and Mental Health seen as Contradictory in Elite Sport?" *British Journal of Sports Medicine* 50/3 (2016): 135.

¹³ Rosie Perkins et al., "Perceived Enablers and Barriers," 2.

students will resist taking these options.¹⁴ We need to start valuing the time outside the practice room as well as within it.

Studies have shown that many music students first turn to their primary instrument instructors for help and advice with regard to any health problem they face, whether it is mental or physical.¹⁵ Although this trusted relationship between student and teacher is often something to be celebrated, it can put teachers in a difficult situation where they want to help but do not necessarily have the appropriate training.

Some countries, including the US, UK, Switzerland, Germany, Australia, and South Africa, have established nationwide centers or associations to more closely provide support to musicians as well as promote better communication between the performing arts and medicine. The British Association for Performing Arts Medicine (BAPAM) says:

Our expert clinicians understand the demands of a performing arts career and can help with problems including creative practice-related injuries and pain, muscular tension, voice problems, hypermobility, performance anxiety, work-related mental health concerns and other psychological issues. BAPAM clinicians are from a range of backgrounds including general practice, physiotherapy, psychology, osteopathy, rheumatology, and orthopedics.¹⁶

Whether it is through education, direct treatment or, at the very least, a database of effective and trusted resources, the health problems listed by BAPAM need to be addressed in schools. The US equivalent, Performing Arts Medicine Association (PAMA), hosts an annual symposium as well as providing an “Online Certificate

¹⁴ Kris S. Chesky, William J. Dawson, and Ralph Manchester, “Health promotion in schools of music: initial recommendations for schools of music,” *Medical Problems of Performing Artists* 21/3 (2006): 143.

¹⁵ Sam Thompson and Aaron Williamon, “Awareness and Incidence of Health Problems among Conservatoire Students,” *Psychology of Music* 34/ 4, 10 (2006): 425.

¹⁶ “BAPAM Performing Arts Medicine Clinics,” British Association for Performing Arts Medicine, accessed April 5, 2021, <https://www.bapam.org.uk/performing-arts-medicine-clinics/>

Course.” The course “focuses on risk factors, life-span issues, and the interactive, cultural, and contextual distinctions of health problems that are unique to performing artists, highlighting specific opportunities and techniques for engagement, education, prevention and treatment in response to various arts-specific health concerns.”¹⁷

The online course offered by PAMA, is aimed at: “clinicians, performing artists, health and performing arts educators, and other healthcare professionals interested in learning the essential information needed to provide initial assessment, treatment, referrals and general educational recommendations for the performing artist.”¹⁸ It covers a wide range of topics including:

General Health and Wellness for Performing Artists, Neuro-musculoskeletal Injuries in Musicians, Common Musculoskeletal Injuries in Dancers, Biomechanics Applied to Music and Dance Technique, General Fitness, Conditioning, and Rehabilitation, Medical Conditions in Performing Arts Medicine, Environmental Concerns in Performing Arts Medicine, Hearing Health, Vocal Healthcare, Performance Anxiety and Psychological Conditions, Special Conditions Found in Musicians, Focal Dystonia, Dancer.Instrumentalist.Vocalist.Actor (D.I.V.A.) Pre-participation Assessment and Physical Evaluation, and Applied Performance Anatomy and Physiology.¹⁹

At first glance some of these subjects are not relevant to everyone — a musician does not necessarily need to learn about the issues that dancers face, and some courses are reliant on an extensive medical background. However, the course is divided into streams based on the profession of the participants.²⁰ With regard to musicians, by the end of the course PAMA says:

¹⁷ “Online Certificate Course,” Performing Arts Medicine Association, accessed May 1, 2021, <http://www.artsmmed.org/symposium/online-certificate-course>

¹⁸ Performing Arts Medicine Association, “Online Certificate Course.”

¹⁹ Ibid.

²⁰ Ibid.

Arts educators will be able to describe performance-relevant anatomy, physiology and psychological considerations; discuss and demonstrate the key components of a strong performance posture; identify injury risk factors; implement best-practice techniques to facilitate safe and productive rehearsals and performances; and understand the arts educators' role in health promotion and rehabilitation.²¹

I firmly believe that music educators should further their knowledge of performing arts medicine and participating in a course such as this is an ideal way to do so. Students often turn to their primary instrument instructors for advice first and teachers need to know effective ways to help and when they should refer on to more specialist care. However, music teachers should not be solely responsible for educating and helping their students on these matters. Music schools need to provide specialist support which faculty can then refer their students to when necessary. For schools that are unable to provide specialist support on-site, they need to provide the faculty and students with a list of trusted local resources and specialists that can be utilized.

Treatment options, for conditions that musicians face including Generalized Anxiety Disorder (GAD), depression, and Performance Related Musculoskeletal Disorders (PRMDs), do exist. With regard to GAD and depression, we often refer to the work of psychologists and psychiatrists. For PRMDs, treatment options include medical interventions such as painkillers and physical therapy, or in extreme cases, surgery. Many of these treatment options are effective but due to the stigma around asking for help, or admitting to an injury in the music world, many musicians, particularly students, will avoid seeking professional help. There are also concerns surrounding time constraints and financial means, so most will choose to only talk to a few trusted people, often including

²¹ Ibid.

their teacher.²² We need to work on building more trust between musicians and medical professionals as well as educate teachers on how best to help their students in the appropriate way.

The treatment options for Music Performance Anxiety (MPA) are more complicated and will be discussed in Chapter 4. Many educators feel equipped to help their students with this issue, and while they may have personal experience and have found a method that works for them, they may still not have the appropriate training to assist their students effectively. However, it is possible to educate music teachers to coach their students and help reduce MPA symptoms.

A study from 2020 looked at training a singing teacher to use Acceptance and Commitment Coaching (ACC) with a student to assess if, with some training, music teachers could become effective at coaching students with MPA.²³ The results from the study are promising and will be discussed in Chapter 4. Other studies have looked at bringing medical professionals into the musical environment which would include some training specific to the performing arts. The Freiburg Institute of Music and Medicine (Freiburger Institut für Musikermedizin - FIM) is an excellent example of how to integrate the two fields.²⁴ By bringing medical professionals into schools, we can perhaps remove the stigma associated with seeking help outside the music world but also ensure when students do seek support, they are seeing those who are best qualified. It is

²² Teresa A. Shaw, David G. Juncos, and Debbie Winter., “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* 11/882 (2020): 1.

²³ *Ibid.*, 11.

²⁴ “Welcome to the FIM!,” Institute for Musicians’ Medicine, accessed May 24, 2021, <https://www.uniklinik-freiburg.de/musikermedizin-en.html>.

important to find a comprehensive solution having highly skilled medical professionals within music education, rather than students turning to teachers for help who may have no relevant medical qualifications and only rely on their personal experiences. Many researchers and psychologists acknowledge that the lifelong experiences of a career in music are valid and can certainly be helpful for students who are struggling with many issues. One joked that it would be easier to train music teachers to be psychologists than to find a way to make psychologists understand what it is like to be a musician.²⁵

However, understandably most music educators will not want to be fully trained to be psychologists. Even if that were the case, an hour-long lesson once a week would never be sufficient to cover both the music and psychology, effectively doubling the workload of already overworked professionals. The empathy that music educators may have for their students is highly valued and can be extremely helpful, but as Thompson and Williamon say, “the point must be made that professional musicians are not physicians or counsellors, and while they will be able to share their experiences with students, they may not be able to provide accurate diagnoses or suggest the best courses of treatment.”²⁶

Some research has pointed out that the lack of trust between musicians and medical professionals is potentially a barrier to providing the most appropriate treatments.²⁷ This could be due to musicians not being able to express their symptoms clearly or medical professionals not understanding the problem. We need to create a

²⁵ Margaret J. Kendrick et al., “Cognitive and Behavioral Therapy for Musical-Performance Anxiety,” *Journal of Consulting and Clinical Psychology* 50/3 (June 1982): 361.

²⁶ Thompson and Williamon, “Awareness and incidence,” 425.

²⁷ Chan, Driscoll and Ackermann, “The usefulness of on-site physical therapy,” 7.

better rapport between the medical professionals who have sufficient experience of working with musicians and the musicians themselves. It is too easy for music educators to inadvertently pass on their mistrust to their students, which could be detrimental to the students' well-being. While resolving the conflict between musicians and medical professionals may not be easy, it is encouraging to see that institutions such as FIM, are beginning the education and integration of both professions from an earlier point in careers.

It appears that most music schools and music students rely on their instrumental teachers to deal with any problems that arise, whether mental or physical. This is concerning for many reasons. Teachers who have been injured may solely rely on what worked for them, which may not work for their students, and they may be unable to recognize differences in what they dealt with compared to their students. As Williamon and Thompson say:

It could be argued that such teachers – as representatives of a group who are susceptible to injury and, in some cases, not well-informed about the best health practice – are actually *not* the best people from whom to seek health-related advice.²⁸

Some teachers, although admittedly from the research it would seem that this is an extremely small percentage, may never have had any performance related physical or psychological issues throughout their careers. Not only will they be unable to draw on their own experience, but they may also be unaware of the best options to recommend. The vast majority of teachers have the best interests of their students at heart, but they may use outdated and ineffective approaches in an attempt to relieve their students'

²⁸ Thompson and Williamon, "Awareness and incidence," 15.

issues. An example of this is the use of Repeated Exposure to address MPA. The theory is that by doing frequent performances a musician can get used to the feelings associated with performing and learn to overcome them and then thrive. This may work for some but it has been shown to be extremely damaging for others as, “repeated exposure to the feared situation (music performance) in the absence of the development of skills and strategies to ensure success is likely to have a detrimental effect on the performer with potentially devastating consequences.”²⁹ While a teacher may have used a method successfully themselves, such as repeated exposure, or have used it to help some students, knowing that it will not be beneficial to everyone and understanding how detrimental it might be, is vital. To be able to create an individualized approach to student health, educators either need to maintain a high level of awareness of the most effective treatment options, or be able to turn to a comprehensive support network of specialists.

The limited availability of specialized care within the majority of schools in the US is problematic due to the lack of free or affordable healthcare in the country. Students, especially graduate students, who have aged out of their parents’ healthcare plans, are at risk of not having suitable healthcare while going through degrees. Even when students do have access to good healthcare, they may not be able to afford copayments or deductibles and might avoid seeking medical treatment in the hope of avoiding a large bill. In countries that do have free healthcare such as the UK, there can often be a long wait time for treatment, or in the case of mental health care, a lack of access. Those that can afford to pay for private healthcare may do so but again, may also

²⁹ Ariadna Ortiz Brugués, “Music Performance Anxiety-Part 2: A Review of Treatment Options,” *Medical Problems of Performing Artists* 26/3 (September 2011): 164.

choose to avoid seeking help due to a lack of trust in the medical profession. The more roadblocks that people come across when seeking treatment options, the more likely they are to give up and push on even when in mental or physical pain. If we can remove all the roadblocks and put centers for musicians' health and well-being in music schools then we can advocate for these unmet needs.

Studies and general anecdotal evidence have shown that the best way to address mental health is to lower the stigma. Multiple studies have shown that, even when reassured of anonymity, students and professionals are wary of coming forward with issues for fear of damaging their career or being judged by their peers, teachers, colleagues, and management.³⁰ In "Psychological well-being in professional orchestral musicians in Australia: A descriptive population study," Kenny et al. found that the response rate from each of the eight orchestras they approached varied from 50% to 98%. Participants from orchestras with lower response rates shared that their colleagues were concerned about career implications if they disclosed any symptoms.³¹ They also felt a lack of support and encouragement to take part from orchestra management and more senior members of the orchestra. In "A meta-analysis of nonpharmacological psychotherapies for music performance anxiety," Goren said, "male and female music conservatory students attending a focus group on music performance anxiety were timid with their disclosure of symptoms and insistent that their participation in the group be

³⁰ Dianna Kenny, Tim Driscoll, and Bronwen Ackermann, "Psychological Well-Being in Professional Orchestral Musicians in Australia: A Descriptive Population Study," *Psychology of Music* 42/2 (2014): 212.

³¹ Ibid.

kept confidential from other conservatory students, administrators, and faculty.”³² In this particular study, the administrators were known to be supportive of students addressing their anxiety, however there was still a reluctance to come forward. The students were particularly concerned about the reactions of their teachers and peers but also noted that the administrators were unaware of the levels of perfectionism and competition culture at the institution.³³ It would appear there needs to be better communication between administrators, teachers, and students, in order to address these issues. Having specialized care within music education would not only help current students but would also open up the conversation for those who go on to become music educators as well.

One issue repeatedly raised in studies is the lack of interest in students to take part in any health and wellness initiatives that are offered at schools. On top of this, there is often a high attrition rate within studies and a reluctance to do the work assigned away from the in-person sessions.³⁴ The attitude to health and well-being from principal study teachers and schools has a significant influence on whether students prioritize these courses.³⁵ When students do take part in research, there can be a certain degree of apathy with regard to their health. In one study, a conversation between a student and the researcher went as follows: **“Do you think shoulder strength is important? Yes. What do you do to maintain shoulder strength? I don’t do anything to maintain my strength,**

³² Laurie Goren, “A Meta-analysis of Nonpharmacological psychotherapies for music performance anxiety,” (Psy.D Diss., California Institute of Integral Studies, 2014), ProQuest (1540841675), 26.

³³ Ibid.

³⁴ Youngshin Kim, “The Effect of Improvisation-Assisted Desensitization, and Music-Assisted Progressive Muscle Relaxation and Imagery on Reducing Pianists’ Music Performance Anxiety,” *Journal of Music Therapy* 45/2 (Summer, 2008): 187.

³⁵ Araújo et al., “Fit to Perform,” 11.

but I do struggle with shoulder pain.”³⁶ Unfortunately this lack of interest from students in taking care of themselves physically, mentally, and emotionally, can be a reason that some schools do not find it necessary to invest in such care. Unless there is a shift in mindset from students, teachers, and administrators, it is going to be challenging to bring about change.

Musicians often only take interest in various treatments once they need them, rather than focusing on preventative care.³⁷ By introducing better care within education, as well as courses that focus on musician’s health and well-being, musicians will be better equipped to have long, healthy, and happy careers. Two studies theorized that the health issues for professional musicians do not decrease over time due to musicians developing better coping mechanisms as they grow older, but because musicians start to drop out of a career with which they can no longer cope.³⁸ This is true for both mental and physical health problems. In a study on the connection between physical pain, depression, and MPA, Kenny et al. attributed the drop-off affect to survival of the fittest:

The current findings could represent cohort effects and not a genuine decrease in performance anxiety with age. For example, the older musicians may represent a more resilient and less anxious group of ‘survivors’; that is, the most seriously affected musicians may have left the field at younger ages.³⁹

³⁶ Dale L. L. Rickert, Margaret S. Barrett, and Bronwen J. Ackermann, “Are Music Students Fit to Play? A Case Study of Health Awareness and Injury Attitudes amongst Tertiary Student Cellists,” *International Journal of Music Education* 33/4 (November 2015): 431. Original fonts used.

³⁷ Roberta Antonini Philippe et al., “Understanding Wellbeing Among College Music Students and Amateur Musicians in Western Switzerland,” *Frontiers in Psychology* 10/820 (2019): 6.

³⁸ Dianna Kenny and Bronwen Ackermann, “Performance-Related Musculoskeletal Pain, Depression and Music Performance Anxiety in Professional Orchestral Musicians: A Population Study,” *Psychology of Music* 43/1 (2015): 53.

³⁹ Kenny, Driscoll and Ackermann, “Psychological Well-Being,” 227.

In their study on the link between PRMDs and depression, Kenny and Ackermann found that musicians in the 41-50 age bracket were more likely to suffer from PRMD, and it was more likely to be severe.⁴⁰ They agreed with previous studies, and again attributed this to early retirement due to medical distress as well as a potentially increased tolerance and a reluctance to continue complaining.⁴¹ They also noted that there has been no new research on how to prevent health issues across the whole lifespan of a musician.⁴² This is an area of research that merits further investigation.

One issue with not having sufficient support within music is that musicians have to find other ways of coping. Self-medicating is often a coping mechanism, albeit an unhealthy one, that people with mental health issues use. A number of studies have shown that musicians are concerned about both their alcohol intake and relationship with prescribed and non-prescribed medication.⁴³ One study noted that 21% of musicians were worried about their alcohol usage.⁴⁴ Kenny found a trend that suggested those with higher levels of MPA and generalized anxiety were more likely to drink more than the recommended amount.⁴⁵ These studies are concerning because they show that there is insufficient support for the mental health of musicians, causing them to use unhealthy coping mechanisms. In contrast, a study that compared the alcohol dependency of music

⁴⁰ Kenny and Ackermann, "Performance-Related Musculoskeletal Pain," 53.

⁴¹ *Ibid.*, 54.

⁴² *Ibid.*

⁴³ Kenny, Driscoll and Ackermann, "Psychological Well-Being," 228.

⁴⁴ Kris S. Chesky and John Hipple, "Performance anxiety, alcohol-related problems, and social/emotional difficulties of college students: a comparative study between lower-division music and non-music majors," *Medical Problems of Performing Artists* 12/4 (1997): 127.

⁴⁵ Kenny, Driscoll and Ackermann, "Psychological Well-Being," 224.

majors against their non-music majors within higher education, found that musicians were less likely to have alcohol-related issues.⁴⁶ While hopeful, the lack of repetition in these studies makes it impossible to determine how much musicians and music educators need to worry about their dependency on alcohol and other drugs. Further research is definitely needed in this area to ensure that musicians do have healthy coping mechanisms in place to deal with work-related stressors.

The fact that many musicians take beta blockers prior to performances is well known but the secrecy and stigma surrounding the use of the drugs causes problems. While the efficacy of using beta blockers for MPA has divided researchers, one issue that is repeatedly raised is that musicians often use beta blockers without a prescription from medical professions. One study noted that 30% of musicians said they used beta blockers to help with their performance anxiety, but far fewer said they were consulting medical professionals for their work-related problems.⁴⁷ Obviously, using any prescription medication without a medical professional's supervision is dangerous. Beta blockers can be harmful to some people, particularly those with conditions such as diabetes, asthma, or thyroid conditions (this is not a complete list and should not be used as medical advice).⁴⁸ According to Kenny et al., research has shown that beta blockers are significantly more effective when used in conjunction with medical supervision.⁴⁹ This could be due to patients receiving the correct dosage or having a greater confidence in the treatment. By

⁴⁶ Chesky and Hipple, "Performance anxiety, alcohol-related problems," 126.

⁴⁷ Kenny, Driscoll and Ackermann, "Psychological Well-Being," 228.

⁴⁸ "Beta-Blockers," Mayo Clinic, accessed May 3, 2021, <https://www.mayoclinic.org/diseases-conditions/high-blood-pressure/in-depth/beta-blockers/art-20044522>

⁴⁹ Kenny, Driscoll and Ackermann, "Psychological Well-Being," 228.

removing the stigma surrounding beta blockers, musicians will be able to use them safely which is arguably more important than whether they work for performance anxiety.

While it is impossible to cover every aspect of musicians' health in the level of detail that I would like, this monograph serves to highlight the biggest issues faced by musicians and provides some ideas on how to implement better care within higher education. I believe there is a need to place a greater emphasis on supporting the mental health of musicians, particularly relating to MPA. It is important to add that by supporting musicians who become physically injured to a greater degree, we could reduce the subsequent mental health issues that may be faced. Chan et al. noted that:

As a consequence of little or no health education or support during their training years as music students, many musicians have a lack of understanding of injury causation and recognition and optimal health practices. This can often lead to feelings of professional inadequacy or shame associated with developing or sustaining an injury.⁵⁰

As will be discussed in Chapter 3, musicians who become physically injured are far more likely to develop MPA, GAD, and/or depression. Shame and secrecy surrounding physical injuries are not only ruining careers due to the pain they cause but also due to the mental health problems that accompany them.

It will be established throughout this document that music students and professionals have to overcome many issues related to their playing, in isolation. It will also be noted that healthcare workers may not be aware of the various cultures within music, including "no pain, no gain" and "the show must go on." This can lead to a lack of understanding as to why their patients may not want to take a break or switch careers. For

⁵⁰ Chan, Driscoll and Ackermann, "The usefulness of on-site physical therapy," 2.

those in the freelance world, taking a break may not be an option due to financial constraints, and students may be unwilling to take breaks for fear of being left behind. Some studies have also shown that the link between MPA, PRMDs, anxiety and depression do not seem to be common knowledge outside the music performance and psychology field.

There is consistent evidence that the life of a student or professional musician is not an easy one.⁵¹ Health problems, both mental and physical, are widespread and there is a lack of awareness and support for most musicians. Training for music educators as well as administrators could help remove some of the stigma attached to asking for help as well as provide students with effective advice. Education for students will not only help them while they are studying and throughout their lives, but also help them to better direct their future students. Music educators need to be aware of their limits in helping their students with mental and physical health problems. Bringing in medical professionals, using a similar support model to that of athletes, would benefit the profession greatly. While MPA is certainly a niche area of psychology, trained practitioners do exist and need to be utilized. To better maintain the health of musicians and the longevity of their careers, we need to understand what we can and cannot help with - much of this comes from a better insight through education and understanding.

⁵¹ Goren, "A Meta-analysis of Nonpharmacological psychotherapies," 61.

CHAPTER 2

UNDERSTANDING MUSIC PERFORMANCE ANXIETY

“I am not fitted to give concerts. The audience intimidates me, I feel choked by its breath, paralyzed by its curious glances, struck dumb by all those strange faces.” This quote perfectly sums up what it can feel like for a musician when they are dealing with severe Music Performance Anxiety (MPA). However, far from being the quote of a student, this is something that was said by one of the most famous composers and pianists from the nineteenth century, Frederick Chopin.⁵² We often generalize and assume that MPA affects those at the beginning of their careers, and while MPA is certainly more prevalent in younger people (under 45), it is something that many musicians deal with throughout their lives, no matter how high-profile they might be.⁵³ Chopin is certainly not the only household name to have struggled with MPA: Maria Callas, Enrico Caruso, Pablo Casals, Luciano Pavarotti, Vladimir Horowitz, Arthur Rubenstein, Sergi Rachmaninoff, and Barbara Streisand all suffered from MPA at times or throughout their careers.⁵⁴

There is no exact percentage for the number of musicians who suffer from MPA and research today still uses estimates from studies done over three decades ago.⁵⁵ It is thought that between 15% to 25% of professional musicians struggle with MPA making

⁵² Kenny, *The Psychology of Music Performance Anxiety*, 1.

⁵³ Santos Orejudo Hernández, Francisco J Zarza-Alzugaray, and Oscar Casanova, “Music Performance Anxiety. Substance Use and Career Abandonment in Spanish Music Students,” *International Journal of Music Education* 36/3 (2018): 461.

⁵⁴ Kenny, *The Psychology of Music Performance Anxiety*, 1.

⁵⁵ *Ibid.*, 86.

it one of the most common complaints that they experience.⁵⁶ However, in some studies the prevalence of MPA is as high as 70%.⁵⁷ It is possible that the higher rates in these studies are due to the musicians who have MPA symptoms being more likely to be interested in taking part in such studies, therefore skewing the results.⁵⁸ The rate of prevalence is also likely to vary depending on the definition given in each study.

One of the biggest issues when discussing MPA is whether it is a specific mental health disorder or an umbrella term for any state of nervousness faced by performers. Many musicians and psychologists use terms such as nerves, stage fright, and MPA interchangeably which makes any discussion murky and difficult. MPA is often described as a state of nervousness or stress before and during a rehearsal or performance. While this is certainly part of MPA, it does not cover the whole spectrum of the problem. For some musicians MPA can cause symptoms for days, weeks and even months before and after performances.⁵⁹ Psychologists have struggled to come to a consensus when defining MPA and this creates a problem. Without being able to accurately define MPA it is difficult to do consistent and reliable research.⁶⁰ It is also likely that the lack of consistent definition is the reason why it is difficult to tell how many musicians suffer from MPA.⁶¹

⁵⁶ I. Fernholz et al., "Performance Anxiety in Professional Musicians: A Systematic Review on Prevalence, Risk Factors and Clinical Treatment Effects," *Psychological Medicine* 49/14 (2019): 2287.

⁵⁷ Ana Elisa Medeiros Barbar, José Alexandre de Souza Crippa, and Flávia de Lima Osório, "Performance anxiety in Brazilian musicians: Prevalence and association with psychopathology indicators," *Journal of Affective Disorders*, 152–154 (2014): 381.

⁵⁸ Dianna T. Kenny, "A Systematic Review of Treatments for Music Performance Anxiety," *Stress & Coping*, 18/3 (September 2005): 204.

⁵⁹ Ariadna Ortiz Brugués, "Music Performance Anxiety-Part 1. A Review of its Epidemiology," *Medical Problems of Performing Artists* 26/ 2 (June 2011): 105.

⁶⁰ Kenny, *The Psychology of Music Performance Anxiety*, 81.

⁶¹ Barbar, Crippa, Osório, "Performance anxiety in Brazilian musicians," 381.

There are two definitions that are most frequently used by researchers. In *The Psychology of Music Performance Anxiety*, Dianna T. Kenny defines MPA as:

Music performance anxiety is the experience of marked and persistent anxious apprehension related to musical performance that has arisen through underlying biological and/or psychological vulnerabilities and/or specific anxiety-conditioning experiences. It is manifested through combinations of affective, cognitive, somatic, and behavioural symptoms. It may occur in a range of performance settings, but it is usually more severe in settings involving high ego investment, evaluative threat (audience), and fear of failure. It may be focal (i.e. focused only on music performance), or occur comorbidly with other anxiety disorders, in particular social phobia. It affects musicians across the lifespan and is at least partially independent of years of training, practice, and level of musical accomplishment. It may or may not impair the quality of the musical performance.⁶²

An earlier definition that is still widely used comes from Salmon in his article from 1990, “A psychological perspective on musical performance anxiety: a review of the literature.” He says, “the experience of persisting, distressful apprehension and/or actual impairment of, performance skills in a public context, to a degree unwarranted given the individual’s musical aptitude, training, and level of preparation.”⁶³

Both of the above definitions suggest that to be considered MPA, the condition has to be persistent and distressing. Salmon says that it has to include impairment of the performance whereas Kenny says that it may or may not impair the quality of performance. Although these definitions are currently the most widely referred to, many researchers adapt them depending on their own interpretation. Within this chapter, I hope

⁶² Kenny, *The Psychology of Music Performance Anxiety*, 61.

⁶³ *Ibid.*, 48.

to resolve some of the issues surrounding the definition of MPA and bring more clarity to the condition.

Performance Anxiety has been listed as a subtype of Social Anxiety in the Diagnostic and Statistical Manual of Mental Disorders (DSM), 5th Edition, but this is not Music Performance Anxiety specific.⁶⁴ If MPA appeared in the DSM, it would not solve the issues of stigma, but it would help ensure that musicians view it as an actual anxiety disorder, rather than consistently mislabeling it as merely nerves or stage fright. Defining MPA is important, but we also need to truly understand the definition to help musicians, both students and educators, manage it more effectively.

Many researchers believe that having a consistent definition is helpful in developing treatment strategies.⁶⁵ However, Kenny's definition is far from straightforward, showing the complicated nature of MPA. Kenny uses the phrase "it may" throughout the definition showing a lack of consistency in symptoms and circumstances in which MPA manifests. This also implies that even with an increase in research on MPA, studies have been unable to come up with clear answers. Salmon's definition is certainly more concise but is perhaps lacking in depth and nuance due to its dated nature. Expanding on her definition, Kenny suggests that MPA can occur in three different ways:

a focal anxiety disorder that is the result of specific conditioning experiences; a disorder that is either a manifestation of social anxiety/phobia or is comorbid with this condition; and a third, more serious,

⁶⁴ "Social Anxiety Disorder," Psychiatry online, DSM Library, accessed May 20, 2021, [https://dsm-
psychiatryonline-org.libproxy.temple.edu/doi/full/10.1176/appi.books.9780890425596.dsm05#BABHHJFI](https://dsm-psychiatryonline-org.libproxy.temple.edu/doi/full/10.1176/appi.books.9780890425596.dsm05#BABHHJFI)

⁶⁵ Kenny, *The Psychology of Music Performance Anxiety*, 66.

type of performance anxiety that may be accompanied by depression as well as panic, and a pervasive problem with the sense of self and self-esteem.⁶⁶

Some musicians will only feel anxious when faced with a performance in the immediate future, whereas others, to a greater or lesser degree will struggle with anxiety in their day to day life. While music teachers are likely to be able to assist with the first, and most mild form of MPA, they are unlikely to be able to effectively help with the second and third. To properly manage MPA and therefore help as many students as possible, we have to obtain a better insight, including being able to differentiate between the milder and more severe forms. Chapter 3 will discuss scenarios where when minimized or left undiagnosed, MPA can start to creep into the day to day life of musicians and cause more serious issues, including connections with Generalized Anxiety Disorder (GAD), depression, and Performance-Related Musculoskeletal Disorders (PRMD).

Many musicians, perhaps without knowing it, often refer to the Yerkes-Dodson model when discussing MPA. We often hear the phrase, “if you are not nervous you will not perform at your best” and while that is true, there is far more nuance involved. The

⁶⁶ Ibid., 64.

Yerkes-Dodson model depicts the relationship between arousal, or energy and anxiety, and performance as a bell curve (Fig 1).⁶⁷

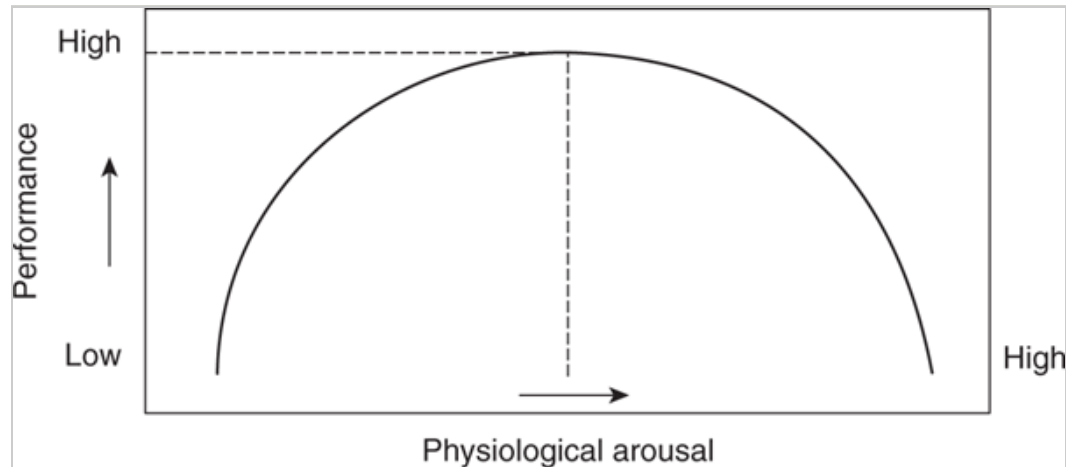


Figure 1. Yerkes-Dodson Curve.⁶⁸

The model argues that musicians, or performers of any kind, need a certain level of arousal to perform well, anything below that will lack concentration, but beyond the peak of the curve the quality of performance will decline again due to the performer having too much energy/arousal/nerves/anxiety.⁶⁹ However, this model does not take into account the individuality of each musician, the amount of preparation that has occurred and the type of performance.

Recent interpretations of the Yerkes-Dodson model are more helpful with regard to understanding MPA.⁷⁰ Fig. 2 shows that the level of optimal arousal is dependent on

⁶⁷ Ibid., 139.

⁶⁸ Ibid.

⁶⁹ Ibid.

⁷⁰ Ibid., 141.

the complexity of the task. Kenny explains, “focused attention increases when there are low to moderate levels of arousal.”⁷¹ For a more complex task, requiring greater concentration, lower levels of arousal are needed.

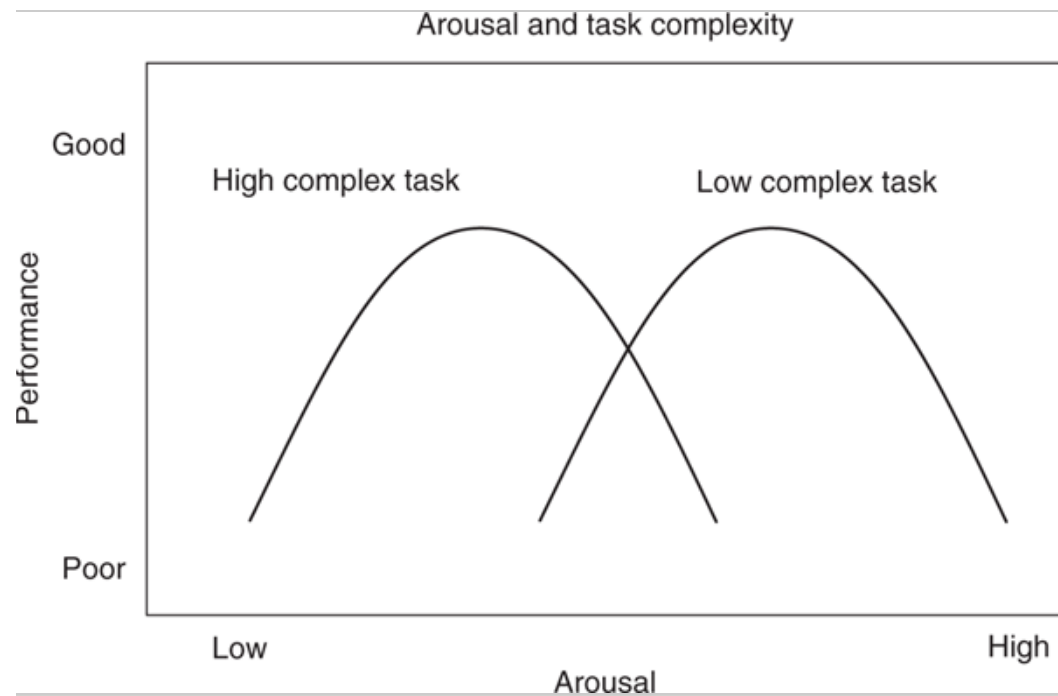


Figure 2. Kenny’s Revised Yerkes-Dodson 1. Arousal vs complexity.⁷²

⁷¹ Ibid.

⁷² Ibid.

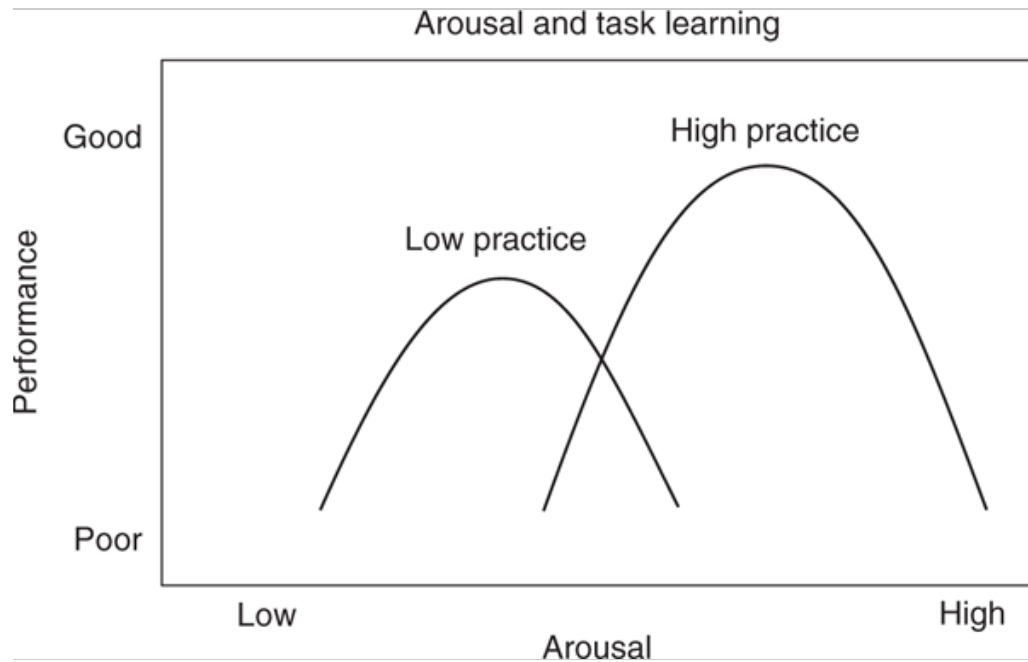


Figure 3. Kenny's Revised Yerkes-Dodson 2. Arousal vs Practice.⁷³

Fig. 3 shows that the amount of preparation must also be taken into consideration when finding the optimal level of arousal for peak performance. If a piece of music has been mastered then more arousal is needed for optimal performance. It must be noted that low amounts of practice will often lead to suboptimal performance even with the correct amount of arousal.⁷⁴ Some studies have shown that the more experience a performer has, the higher their arousal needs to be.⁷⁵ The relationship between arousal and performance quality is more sophisticated than most people anticipate.

⁷³ Ibid., 142.

⁷⁴ Ibid.

⁷⁵ Ibid.

Part of fully understanding MPA is acknowledging how complicated it is. MPA can be considered to be “state anxiety with trait character”⁷⁶ State anxiety refers to moments of anxiety or a “transitory emotional state” whereas trait anxiety refers to a chronic state of worry or apprehension.⁷⁷ Simply put, state anxiety is induced by a particular situation or environmental factors, whereas trait anxiety is a measure of how anxious a person feels on a daily basis.⁷⁸ A condition such as Generalized Anxiety Disorder (GAD) would be considered high trait anxiety whereas an example of state anxiety might be the fear of heights or stepping onto stage for a performance. MPA remains relatively consistent within similar performance situations so can be seen as a chronic condition but only in one particular situation.⁷⁹ Musicians with MPA have anxiety around most, if not all, of their performances but many only feel anxiety in that situation. It does not affect other aspects of their lives. One particular study by Cohen and Bodner examined the relationship between state and trait anxiety in an effort to help reduce the symptoms of MPA. They found:

The absence of significant pre-/post-test reductions in state and trait anxiety and negative affect in the current study, together with the absence of inter-correlations between MPA and these variables, suggest that participants were not generally anxious and that the intervention specifically targeted MPA. This supports the understanding of MPA as a specific type of anxiety, where the performer suffers from MPA without necessarily being generally anxious or impaired in any other areas of his/her life.⁸⁰

⁷⁶ Regina Katharina Studer et al., “Psychophysiological Activation during Preparation, Performance, and Recovery in High- and Low-Anxious Music Students,” *Applied Psychophysiology and Biofeedback* 39/1 (2014): 47.

⁷⁷ Kenny, *The Psychology of Music Performance Anxiety*, 25.

⁷⁸ Jennifer Y. F. Lau, Thalia C. Eley, and Jim Stevenson, “Examining the State-Trait Anxiety Relationship: A Behavioural Genetic Approach,” *Journal of Abnormal Child Psychology* 34/18 (2006): 19.

⁷⁹ Regina Katharina Studer et al., “Psychophysiological Activation during Preparation,” 47.

⁸⁰ Susanna Cohen and Ehud Bodner, “Music Performance Skills: A Two-Pronged Approach – Facilitating Optimal Music Performance and Reducing Music Performance Anxiety,” *Psychology of Music* 47/4 (2019): 532.

They suggest that because there was not a connection found between MPA and the amount of trait anxiety a person has, that MPA should be considered as a separate form of anxiety. They do state however, that this is only relevant when discussing the mildest form of MPA according to Kenny's designations (Fig. 4).⁸¹

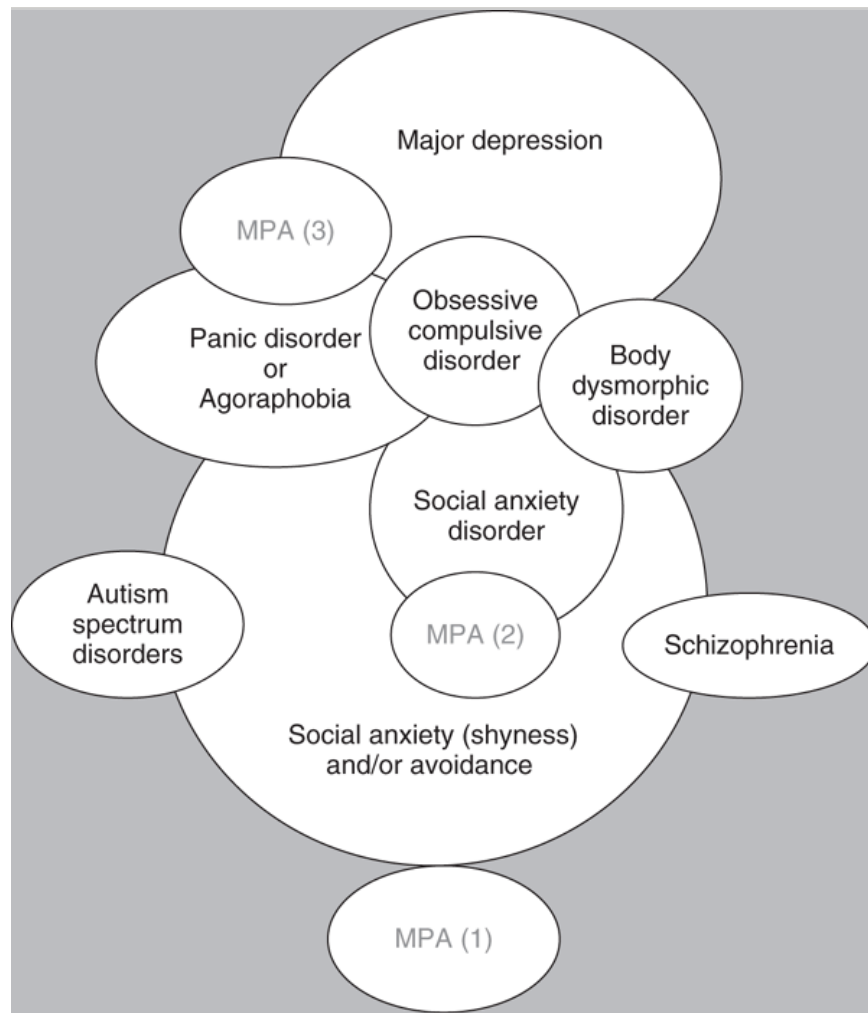


Figure 4. Kenny's Proposed Subtypes of MPA.⁸²

⁸¹ Kenny, *The Psychology of Music Performance Anxiety*, 65.

⁸² *Ibid.*

Kenny suggests that MPA can be broken down into three subtypes. The first, and mildest form, is MPA that occurs alone, or focally, and has no overlap with other conditions. The second occurs with social anxiety or a social anxiety disorder and the third has overlaps with depression and/or a panic disorder.⁸³ In more severe cases of MPA, such as those in the second or third group, there is a significant overlap between state/trait anxiety where performers are anxious in their day-to-day lives. However, the relationship is not straightforward. Musicians may have high levels of performance anxiety and low general anxiety, low levels of performance anxiety and high levels of general anxiety, or similar levels of both.⁸⁴

It is thought that musicians with greater trait anxiety need lower levels of arousal to perform at an optimal level.⁸⁵ Adding further anxiety to an already anxious person will push them over the edge of the Yerkes-Dodson bell curve. In contrast, musicians with lower levels of trait anxiety need to increase their arousal levels to aid in concentration.⁸⁶ Considering all the factors involved in determining the optimal level of arousal for each musician to achieve peak performance, it seems sensible to suggest that performance psychologists are needed to help musicians achieve their performance goals. As Kenny says, “it will have become clear that deriving general principles related to task complexity/arousal relationships is highly challenging, requiring interpretive and sensitive application in the area of music performance.”⁸⁷ While I do not believe that helping more students to perform at a high level is the only reason to employ specialists

⁸³ Ibid.

⁸⁴ Ibid., 66.

⁸⁵ Ibid., 142.

⁸⁶ Ibid., 142.

⁸⁷ Ibid., 141.

in the field of psychology, it is probable that by developing better performance skills, musicians will reduce their issues surrounding MPA and this in turn will lower their risk of developing long-lasting symptoms.

It is accepted that there is a link between cognitive, physiological, and behavioral symptoms within anxiety disorders.⁸⁸ Kenny suggests that MPA is also “manifested through combinations of affective, cognitive, somatic, and behavioral symptoms.”⁸⁹ Knowing what all these symptoms look like, can help musicians, both students and teachers, address MPA effectively and work out the best approach for reducing its impact in their lives. Spahn explains:

MPA is expressed on the emotional and physical level as well as on the levels of thinking and behavior. It is characterized by typical physical symptoms such as rapid heartbeat, increased blood pressure, rapid and shallow breathing, and dry mouth, among other things. Symptoms may consist of constriction of thought—heightened alertness and concentration to fears of failure—intensified feelings between fear and exhilaration, as well as special behavior like ritualized repetitions, escapist tendencies, and general unrest.⁹⁰

The physiological symptoms of MPA are probably the most well-known and most frequently noticed by both students and teachers alike.⁹¹ An abundance of the symptoms described by Spahn in the quote above and feeling unable to control them is often what leads performers to take beta-blockers.

⁸⁸ Ibid., 36.

⁸⁹ Ibid., 61.

⁹⁰ Claudia Spahn, “Treatment and Prevention of Music Performance Anxiety,” 130.

⁹¹ Clara Boyett, “Music Performance Anxiety, The Role Of Teachers In Addressing Anxiety In Adolescent Students And Beyond,” *MTNA e - Journal* 10/3 (February 2019): 3.

Studies have been done to assess the link between various physiological symptoms and performance quality (both musical and otherwise).⁹² These include symptoms such as heart-rate, breathing, saliva amount, and cortisol and cortisone production. While these studies might be too in-depth or specific for most musicians to find helpful, for some, having a more complete understanding of what is occurring physiologically can be useful. It is also vital that these studies are used to develop efficient approaches to the treatment of MPA in the future.

It is worth mentioning that musicians often struggle to correctly match how they feel with their symptoms. According to Kenny “researchers in the health area have long known about the unreliability of self-report measures in assessing psychological well-being or predicting health outcomes.”⁹³ The issue is that people in denial about their health issues, mental or physical, will self-report in the same way as someone who is genuinely healthy.⁹⁴

In 1992, Frederikson and Gunnarsson studied the effect of performance on heart rate (HR).⁹⁵ As we might expect, HR was higher during public rather than private performances as well as being higher during the performance compared to before and after.⁹⁶ The authors also found that high-anxious musicians had a higher HR during the public performance than low-anxious musicians. A more recent study, from 2014, by Studer et al., found similar results but also noted that HR did not decrease in the same

⁹² Alice M. Braden, Margaret S. Osborne, and Sarah J. Wilson, “Psychological intervention reduces self-reported performance anxiety in high school music students,” *Frontiers in Psychology* 6/195 (2015): 2.

⁹³ Kenny, *The Psychology of Music Performance Anxiety*, 95.

⁹⁴ *Ibid.*

⁹⁵ Regina Katharina Studer et al., “Psychophysiological Activation during Preparation” 46.

⁹⁶ *Ibid.*

way for different performance settings. After a public or high-stress performance, HR did not decrease to the same level as it did after a private or low-stress performance setting.⁹⁷

More studies focusing on physiological symptoms are listed in Appendix A.

Cognitive symptoms are perhaps less frequently spoken about but are thought to be the most damaging to performance success.⁹⁸ These symptoms most commonly manifest as negative self-talk, but can also include general worrying and catastrophizing, as well as being distracted by trivial thoughts unrelated to the task at hand. Buma et al. say, “according to distraction theories of choking under pressure, the anxiety generated by the increased pressure to perform well causes individuals to shift their focus of attention from task-relevant information to irrelevant and distracting stimuli.”⁹⁹ The problem with cognitive symptoms is that they can easily be hidden. A teacher can be aware of cognitive symptoms in general but the student may not feel safe admitting that they struggle with these thought patterns, potentially due to the stigma surrounding MPA and other mental health issues. This makes it difficult to address the issues.

In her book, Kenney describes a typical thought process that musicians might go through:

I have not practiced the last five bars of the coda of the sonata as well as the other sections. I am not going to play that section well. I am going to worry about the recapitulation and the coda from the minute I sit down at the piano on stage. That means I am not going to play any of the sonata well. I may as well not turn up to the concert. I will only make a fool of myself. I will probably ruin any chance I have of a career in music.¹⁰⁰

⁹⁷ Ibid., 55.

⁹⁸ Kenny, *The Psychology of Music Performance Anxiety*, 126.

⁹⁹ Lori A. Buma, Frank C. Bakker, and Raoul R. D. Oudejans, “Exploring the Thoughts and Focus of Attention of Elite Musicians under Pressure,” *Psychology of Music* 43/4 (2015): 460.

¹⁰⁰ Kenny, *The Psychology of Music Performance Anxiety*, 31.

Although theoretical, this sort of rumination is backed up from anecdotal evidence throughout her book and in papers by other researchers. In chapter 9 of *The Psychology of Music Performance Anxiety*, Kenny uses quotes from twenty professional musicians to raise awareness of the common thoughts that musicians have.¹⁰¹ There is a significant amount of repetition within these quotes showing that cognitive symptoms can significantly affect professional musicians. Examples include:

Often I'll worry about things and usually that's in the before...it's not actually in the moment; like, the week before, I'll be worried about a certain programme.¹⁰²

I'm a professional, I know what I'm doing. I don't know why I feel that I'm going to botch it and I don't know why I start to psych myself out of it months beforehand.¹⁰³

We had a fantastic week of rehearsals but I started to worry about the solos on the night of the concert. I started to overthink immediately before going on stage. This really impaired my performance.¹⁰⁴

It remains to be seen if there is a simple solution for reducing these thought patterns, but knowing that professionals deal with this problem, may give some peace of mind to students who also struggle. If teachers are able to open up to their students about their own cognitive symptoms, we can perhaps gradually break down the stigma surrounding them.

We can establish some of the most common thought processes from the results of Kenny's Music Performance Anxiety-Inventory (M-PAI) where "thinking about the evaluation I may get interferes with my performance" was the most prevalent response.¹⁰⁵

¹⁰¹ Ibid., 263.

¹⁰² Ibid., 273.

¹⁰³ Ibid., 274.

¹⁰⁴ Ibid.

¹⁰⁵ Ibid., 100.

The M-PAI has been used in a number of studies and is widely seen as the most reliable questionnaire for recognizing MPA.¹⁰⁶

Osborne and Franklin noted that the cyclical nature of cognitive thoughts is what makes them so unmanageable for many musicians, especially in high pressure situations:

When performances are perceived as formal or highly evaluative, the importance of consequences of any negative evaluation are greater for the individual. Rules and strategies for coping elicit greater demands on the individual (e.g., “I can’t make any mistakes - If I do, I’ll never recover”), reducing cognitive attention to the task at hand, and thus increasing the likelihood of just such an incident occurring (e.g., making a mistake, which increases the likelihood of negative evaluation). As a result, the person experiences music performance anxiety. This anxiety feeds back schematic beliefs about oneself (e.g., “I’m now making a fool of myself”) and the cycle is reinforced.¹⁰⁷

One of the reasons cognitive symptoms can be problematic is that not only are musicians focusing on non-task specific thoughts related to the performance, they can also be worrying about their behavioral and physiological symptoms which can then exacerbate everything else. A musician may be concerned that they will feel pain during a performance and be unable to get through it, or that their legs/arms might start shaking. The thought process might then cycle round to being concerned that they are not focusing on the music and are therefore more likely to make mistakes.

Behavioral symptoms refer to any changes in behavior from a students’ normal patterns but they may be quite subtle and difficult to notice. Due to their nature, these symptoms are very personal. One student might start talking more than usual, whereas

¹⁰⁶ Álvaro M. Chang-Arana, Dianna T. Kenny, and Andrés A. Burga-León, “Validation of the Kenny Music Performance Anxiety Inventory (K-MPAI): A Cross-Cultural Confirmation of Its Factorial Structure,” *Psychology of Music* 46/4 (July 2018): 564.

¹⁰⁷ Margaret S. Osborne and John Franklin, “Cognitive processes in music performance anxiety,” *Australian Journal of Psychology*, 54/2 (2002): 92.

another student might talk less. Some might fidget and others might become very still. They can also include habits such as pacing, more frequent trips to the bathroom, or drinking and eating more or less than usual.¹⁰⁸ Behavioral symptoms and routines can also manifest within music practice where a student might practice more or less than usual in the run up to a performance, either avoiding or obsessing over their instrument.¹⁰⁹

Behavioral symptoms are perhaps the most challenging to recognize, in part because they can be difficult to differentiate from physiological or cognitive symptoms. Behavioral symptoms might be more difficult to spot until a relationship has developed between a student and a teacher. It will also depend on how engaged the teachers are with each of their students. While most teachers want to be as equally engaged with each student, it is likely, particularly in a large studio, that some of these symptoms could go unnoticed. Students may or may not be aware of these behavioral changes in themselves.

It is thought that cognitive symptoms lead to physiological and behavioral symptoms, therefore making them the most important to address. In “Music performance anxiety: New insights from young musicians,” Kenny and Osborne state, “negative cognitions may have a more important role in causing performance disruption than physiological or behavioral components of performance anxiety.”¹¹⁰ Their theory is that if we can reduce the cognitive symptoms, the behavioral and physiological symptoms will reduce as well.¹¹¹ However, overcoming cognitive symptoms can be challenging.

¹⁰⁸ Clara Boyett, “Music Performance Anxiety, The Role Of Teachers In Addressing Anxiety,” 3.

¹⁰⁹ Ibid.

¹¹⁰ Dianna T. Kenny and Margaret S. Osborne, “Music Performance Anxiety: New Insights From Young Musicians,” *Advances in Cognitive Psychology* 2/2 (2006): 108.

¹¹¹ Ibid.

Without proper training or in-depth knowledge/research, music teachers will probably be unable to help their students effectively.

It is important to understand the “why” behind MPA to fully explain what it is. For many people, MPA begins during their childhood, particularly adolescence.¹¹² During this time our cognitive processing develops and we are able to think of ourselves in the future, rather than purely in the current world around us.¹¹³ This forward-thinking can lead to teenagers preemptively evaluating themselves in a negative way. Rather than being focused in the present, they are now worried about the future as well. Boyett says, “the fear of negative evaluation is integrally tied to the act of performance for musicians, because evaluation and critique is experienced in lessons, competitions and public performances.”¹¹⁴ If a student has poor musical performances during their teenage years, they are likely to develop more severe MPA as an adult.¹¹⁵

Dr. Julie Jafee Nagel is a psychologist, psychoanalyst, and musician and author of *Managing Stage Fright - A Guide for Musicians and Music Teachers*. As well as discussing how upsetting performance experiences as a child can continue to affect musicians when they are adults, Dr. Nagel also discusses how generalized childhood trauma can cause performance anxiety to be exacerbated.¹¹⁶ Understandably, musicians may not feel comfortable sharing their traumatic experiences with their teachers and even if they do, teachers quite rightly may not feel equipped to untangle where the childhood

¹¹² Ibid., 103.

¹¹³ Ibid.

¹¹⁴ Clara Boyett, “Music Performance Anxiety, The Role Of Teachers In Addressing Anxiety,” 4.

¹¹⁵ Kenny and Osborne, “Music Performance Anxiety: New Insights From Young Musicians,” 104.

¹¹⁶ Julie Jafee Nagel, *Managing Stage Fright - A Guide for Musicians and Music Teachers*, (New York: Oxford University Press, 2017), 62.

trauma of their students relates to MPA. The relationship between childhood trauma and MPA goes far beyond the scope of this monograph but it is for connections such as this that I believe music schools need to be better equipped to deal with students struggling with MPA. A music educator does not necessarily have the training to help the student in a psychological capacity and should not be expected to teach the instrument and be a certified therapist in the space of an hour a week. There needs to be a differentiation between listening empathetically, which many music teachers are very good at, and providing therapy. Knowing when a conversation within a lesson can help, and knowing when to refer students to professional help, be it mental or physical, is an important skill that music educators need to develop. Nagel says, “unacknowledged and untreated, anxiety can interfere seriously with pleasure in performing and prevent students from reaching both music and life goals. The importance of the music teacher’s role in making appropriate referrals cannot be underestimated or over emphasized.”¹¹⁷

Previously, it was thought that women were more likely to suffer with MPA than men. However, similarly to other mental health issues, it is now thought that the higher rates of women reporting MPA symptoms is due to the fact that they are happier to disclose mental health issues compared to men. In more recent studies researching MPA or anxiety, higher proportions of men have been meeting the criteria for a diagnosis of social anxiety.¹¹⁸ Kenny believes that while women are still more likely to report symptoms of MPA and may indeed struggle with it more, negative cognitive behaviors

¹¹⁷ Nagel, *Managing Stage Fright*, 51.

¹¹⁸ Kenny, Driscoll and Ackermann, “Psychological Well-Being,” 226.

are a greater indicator of MPA.¹¹⁹ Being able to recognize negative cognitive behaviors is a key step in addressing MPA, and this needs to be the focus rather than the gender of the musician.

There have been multiple books, dissertations and papers written on the subject of MPA, including in depth literature reviews, and while helpful, these documents place the onus of recovery on the student and to a lesser degree, instrumental teachers. While researching the condition is important for both students and teachers, only a certain level of understanding can be gained from reading. In the same way that we cannot learn an instrument by reading a book, we also cannot become psychologists through reading. If we think of MPA as a complex mental health issue, then perhaps the attitude towards how it should be treated will shift as well. The stigma around mental health is ever-present and getting professional help for any condition can be challenging. Providing sufficient professional care for students and advice for teachers within the music education system will help remove some of the stigma.

MPA is thought to be one of the most common complaints that musicians face during their careers, and yet there is little in the way of support or standardized treatment within the music education system.¹²⁰ Some musicians take breaks when MPA becomes too much to handle and some abandon their performing careers entirely.¹²¹ If we had a

¹¹⁹ Kenny, *The Psychology of Music Performance Anxiety*, 127.

¹²⁰ Paul Sărbescu and Mădălina Dorgo, "Frightened by the Stage or by the Public? Exploring the Multidimensionality of Music Performance Anxiety," *Psychology of Music* 42/4 (July 2014): 2.

¹²¹ Santos Orejudo Hernández, Francisco J Zarza-Alzugaray, and Oscar Casanova, "Music Performance Anxiety. Substance Use and Career Abandonment in Spanish Music Students," *International Journal of Music Education* 36/3 (August 2018): 460.

better understanding of what MPA entails, we might be able to create a more supportive learning environment and help musicians long before they abandon their careers.

CHAPTER 3

THE COMORBIDITIES OF MUSIC PERFORMANCE ANXIETY

To the general public, the life of a professional musician can seem romantic. They associate the concerts they attend with relaxation and enjoyment and could understandably assume that the performers on stage feel the same. However, it has been shown that many student and professional musicians often deal with significant health issues directly related to their chosen profession:

Performing music in public requires the management of intense physical and mental demands. How musicians perceive and respond to these demands, and deliver high-quality performances consistently under pressure, can determine not only the success of single events but also the path and length of their careers.¹²²

One study found that 50-60% of student musicians suffer from work-related problems and this rises to approximately 75% in the professional world.¹²³

There are multiple theories as to why musicians have to deal with so many work-related issues. One study pointed to the amount of stress placed on musicians caused by being in a profession that is “high demand, low control.”¹²⁴ “High demand, low control” refers to jobs that have high psychological demand and low amounts of control in their job.¹²⁵ Professional musicians are expected to produce perfection for each performance they do, but those, particularly in the Western classical tradition, have very little autonomy. Studies in the general population have shown that employee satisfaction and

¹²² Aaron Williamson et al., “Complexity of physiological responses decreases in high-stress musical performance,” *Journal of the Royal Society, Interface* 10 (2013), 1.

¹²³ Hildebrandt, “Increment of Fatigue,” 43.

¹²⁴ Ibid.

¹²⁵ Jan Sundquist and Sven-Erik Johansson, “High Demand, Low Control, and Impaired General Health: Working Conditions in a Sample of Swedish General Practitioners,” *Scandinavian Journal of Public Health* 28/2 (June 2000): 1.

mental health is at the lowest in a “high demand, low control” profession.¹²⁶ Another study listed issues with instrument design - most instruments are designed to fit the 50th percentile of men leading to posture issues for a large proportion of musicians which in turn can lead to long-term musculoskeletal problems.¹²⁷ There are some instrument modifiers that are being developed to help musicians adjust their instrument to their body, rather than the other way around but cost can easily be a barrier as well as pride and a desire to conform.

Although a significant proportion of music programs include courses on health and well-being in the profession, some are electives and/or far from in-depth. Many music students acknowledge that their health is poor and studies have shown that, in general, music students have worse health than their non-music peers.¹²⁸ The lack of consistent and effective health education for music students leads to a lack of understanding about how their minds and bodies may be affected by their chosen profession. A discussion on how to more effectively implement courses on health and well-being in the higher education setting can be found in Chapters 4 and 5.

Another problem raised is the lack of understanding from those in the medical profession. According to Brandfonbrener, health care workers are not aware of the culture within music, so they do not understand why musicians would be opposed to giving up a profession that causes them physical pain and mental-health issues, while not earning very much money.¹²⁹ Most musicians have been playing their instrument since

¹²⁶ Ibid.

¹²⁷ Christine Guptill, “Musicians’ Health: A Developing Role for Occupational Therapists,” *Occupational Therapy Now* 16/6 (November 2014): 29.

¹²⁸ Araújo et al., “Fit to Perform,” 10.

¹²⁹ Guptill, “Musicians’ Health,” 30.

they were very young, leading to an intertwining of self with music. This can lead to a reluctance to walk away from music even if it is causing a great deal of pain.¹³⁰ Medical professionals need to be able to understand this and support their patients rather than dismiss them.

Perfectionism is often associated with the life of a professional musician. However, one study notes that there is a difference between *perfectionistic strivings* and *perfectionistic concerns*.¹³¹ Perfectionistic strivings involve setting very high standards and perfectionistic concerns involve being overly critical and having very negative reactions to mistakes. Due to the competitive nature of the profession, musicians often have perfectionistic strivings and these can be associated with positive behaviors and outcomes. However, those with perfectionistic concerns often rely heavily on external validation which can lead to more negative behaviors and MPA.¹³²

Secrecy surrounding injuries or mental health problems seems to be endemic within the music profession. In one study that surveyed the eight full-time professional symphony orchestras and pit bands in Australia the response rate to the survey varied considerably. In some orchestras it was as high as 98% but in others it was as low as 50%. Those that participated were asked why they thought the response rate might have been so low. Evidently, many musicians were concerned about the career implications if they reported issues with physical pain or mental health and then being judged by fellow

¹³⁰ Ibid.

¹³¹ Araújo et al., "Fit to Perform," 3.

¹³² Ibid., 7.

musicians and orchestral management.¹³³ Keeping an injury or mental health issue a secret can lead to a significant degree of shame.

Musicians might be convinced of the need to keep their issues secret for fear of losing out on work. Within education, students may have a similar feeling of the need for secrecy due to concerns about falling behind their peers or being passed over for any work opportunities that might arise.¹³⁴ There is a stereotype attached to MPA that says those who suffer from it are not able to perform at a high standard. While those with MPA often feel as if they perform below their best, one study showed that performance catastrophes are rare. However, without this understanding it would not be too far-fetched for a colleague to be concerned about passing on work to someone with MPA in case they do not perform well. This lack of support from colleagues can lead to musicians hiding their symptoms or issues which then exacerbates the problem.

One study hypothesized that the highly demanding environment of the music profession, with little support from peers, administration, and management can lead to a particular vulnerability for developing MPA.¹³⁵ In general, a higher level of openness leads to a feeling of camaraderie which, although it will not remove MPA altogether, will definitely create a more supportive atmosphere.

Musicians often have quite anti-social schedules with late working hours due to evening rehearsals and concerts. This can lead to poor sleep patterns which often lead to

¹³³ Kenny, Driscoll and Ackermann, "Psychological Well-Being," 3.

¹³⁴ Kenny, *The Psychology of Music Performance Anxiety*, 278.

¹³⁵ Fernholz et al., "Performance Anxiety in Professional Musicians," 2.

greater stress. Poor sleep and high stress are severely detrimental to the overall mental and physical health of a person.¹³⁶

One study found that students do not tend to engage in regular physical activity.¹³⁷ However, it has been shown that regular physical activity can define a more balanced lifestyle and benefit both mental and physical health. While a lack of physical activity or an unbalanced lifestyle will not cause MPA, addressing these areas may help musicians reduce their symptoms. Some professional musicians do maintain a balanced lifestyle, but it is rare for students to do so and this needs to be encouraged and incorporated into a routine.¹³⁸

As was discussed in Chapter 1, there has been a significant amount of research into the health and well-being of musicians over the past few decades. Despite this there has been little evidence of improvement in the overall health of musicians or support for their various work-related conditions. One area of research that is severely lacking is the health conditions that often appear alongside MPA, also known as comorbidities. Kenny believes that the lack of research into the comorbidities of MPA, can at least partly be attributed to the lack of a diagnosis in the psychiatric classification system.¹³⁹ However, despite this, some research in this area is being done by those interested in the field of MPA.

The majority of the studies that have been done to identify comorbidities and MPA have taken place in Australia. Medical studies are always quite rightly wary of

¹³⁶ Jolan Kegelaers, Michiel Schuijjer, and Raoul RD Oudejans, "Resilience and Mental Health Issues in Classical Musicians: A Preliminary Study," *Psychology of Music*, (June 2020): 2.

¹³⁷ Araújo et al., "Fit to Perform," 14.

¹³⁸ Kenny, Driscoll and Ackermann, "Psychological Well-Being," 2.

¹³⁹ Kenny, *The Psychology of Music Performance Anxiety*, 64.

assuming that something that occurs in one country will occur in the same way in another. Cultural differences as well as differences within the medical community can have a significant impact.¹⁴⁰ However, there have been sufficient studies done in multiple countries, including but not limited to, Australia, Brazil, South Africa, and the UK, indicating that comorbidities associated with MPA are widespread.

The American Psychological Association defines comorbidity as “the simultaneous presence in an individual of more than one illness, disease, or disorder.”¹⁴¹ There is some inconsistency within the medical community when defining the term, but the consensus is that comorbidity usually leads to poorer outcomes and more complex treatment and management.¹⁴² This is true in both physical and mental health.

Performers, educators, and administrators within the field of music need to be aware of the comorbidities, or likelihood of them, with MPA, to more effectively help their students. In a study done in 2012, the results of comorbidities in musicians make for disturbing reading:

Thirty-three percent of musicians may meet criteria for a diagnosis of social phobia. Twenty-two percent answered in the affirmative to a question screening for post-traumatic stress disorder. Thirty-two percent returned a positive depression screen; this subgroup had higher scores on the anxiety measures.¹⁴³

Many of the studies involving musicians with mental health issues are likely to be attractive to those who feel they suffer from them, giving a skewed result. However, the

¹⁴⁰ Barbar, Crippa, Osório, “Performance anxiety in Brazilian musicians,” 381.

¹⁴¹ “APA Dictionary of Psychology,” American Psychological Association, accessed March 10, 2021, <https://dictionary.apa.org/comorbidity>

¹⁴² Jose M. Valderas et al., “Defining Comorbidity: Understanding Health Implications for and Health Services,” *Annals of Family Medicine* 7/4 (July 2009): 357.

¹⁴³ Kenny, Driscoll and Ackermann, “Psychological Well-Being,” 1.

consistency in results from studies around the world, shows that comorbidities are definitely a problem for musicians, even if we cannot reliably extrapolate the percentages for the entire music population. It is only when comparing these percentages to that of the general population that it can be seen how high they are.

Barbar et al. undertook a study of professional and amateur musicians in Brazil. They compared the rates of MPA and also looked at the rates of social anxiety and depression in the same sample groups.¹⁴⁴ They found that professional musicians were significantly more likely to have MPA, social anxiety or depression - 40% of the professional musicians had MPA, 21.6% had social anxiety, and 24.3% had depression. In contrast, 14% of the amateur musicians had MPA, 15.6% had social anxiety, and 17% had depression.¹⁴⁵ This study also compared the rates of anxiety, social anxiety, and depression to results from another study by Andrade et al. that examined the general population.¹⁴⁶ In the general population, the percentage of people with a specific phobia is 19.9%, but this drops quite considerably to 3.9% for social anxiety, and 2.3% for generalized anxiety.¹⁴⁷ Both the Brazilian study and an Australian study by Ackermann et al. found the rates of anxiety in musicians to be significantly higher than that of the general population. The Brazilian study found moderate to severe anxiety in 13% of the musicians and 19% of them had social anxiety.¹⁴⁸ The Australian study found that 33% of their subjects met the diagnosis of social phobia.¹⁴⁹ The higher rate in the Australian

¹⁴⁴ Barbar, Crippa, Osório, “Performance anxiety in Brazilian musicians,” 381.

¹⁴⁵ Ibid., 383.

¹⁴⁶ Ibid., 385.

¹⁴⁷ Ibid.

¹⁴⁸ Ibid.

¹⁴⁹ Bronwen Ackermann et al., “Sound Practice—improving occupational health and safety for professional orchestral musicians in Australia,” *Frontiers in Psychology* 5/973 (2014): 1.

study can be accounted for by the fact that all of the musicians involved reported having some degree of MPA. The rate of depression in the general population was reported to be 9.4%. The Brazilian study found the rate of depression among musicians to be 20%.¹⁵⁰ While these studies did not include students, considering the discussion in Chapter 1 detailing the issues of emotional health in student musicians, we can extrapolate that student musicians will face similar issues with comorbidities.

In a 2004 study, “Treating individuals with debilitating performance anxiety: an introduction,” Powell found that many students waited to report their difficulties with MPA until after their anxiety was affecting them both academically and socially.¹⁵¹ It was found that it is more difficult to treat students who presented with MPA and comorbidities than those who just presented with MPA. The most frequently found comorbidities were social and generalized anxiety and approximately a third of the students in the study fell into this category.¹⁵² This proportion of musicians suffering with comorbidities is in line with percentages found in other studies. In *The Psychology of Music Performance Anxiety*, Kenny references a study that also found that one-third of musicians with severe MPA also had generalized anxiety disorder.¹⁵³ In another study, Kenny et al. suggest:

Depression, PTSD, obsessive-compulsive disorder or traits, generalized anxiety disorder and panic disorder are all candidates that need to be assessed in the diagnostic work up of a severely performance anxious musician. Treatment that focuses only on the anxiety symptoms is likely to

¹⁵⁰ Barbar, Crippa, Osório, “Performance anxiety in Brazilian musicians,” 385.

¹⁵¹ Douglas H. Powell, “Treating Individuals with Debilitating Performance Anxiety: An Introduction,” *Journal of Clinical Psychology* 60/8 (August 2004): 801.

¹⁵² Barbar, Crippa, Osório, “Performance anxiety in Brazilian musicians,” 385.

¹⁵³ Kenny, *The Psychology of Music Performance Anxiety*, 66.

meet with failure if these other psychological issues are part of the clinical picture.¹⁵⁴

Those treating musicians for MPA need to be aware of the risks of comorbidities if they are to be effective in their interventions.

One of the conclusions from the Brazilian study showed that while amateur and professional musicians are both just as likely to suffer from MPA, professional musicians are significantly more likely to deal with comorbidities relating to their mental health. This supports the idea that music is perceived to be beneficial to the mental health of the general public - many people are encouraged to join choirs, for example, as a way to boost their mental health - but it does not have the same benefits for professional musicians. Barbar et al. believe this is due to “complicating factors inherent to the occupation such as occupational stress, competitiveness, and elements of the work environment that cause impairments other than MPA.”¹⁵⁵ Some of these factors could be the physical issues that professional musicians face due to the increased hours of practicing and performing, the desire for perfection, and the stress caused by being in an often insecure profession.

Physical comorbidities also occur with MPA. While comorbidities of MPA with mental health might be easy to understand, many people miss the connection with physical health issues. In *Managing Stage Fright - A Guide for Musicians and Music Teachers*, Nagel lists “repeated physical complaints with no physical diagnosis” as a symptom that indicates chronic issues with MPA that need a referral for professional

¹⁵⁴ Kenny, Driscoll and Ackermann, “Psychological Well-Being,” 20.

¹⁵⁵ Barbar, Crippa, Osório, “Performance anxiety in Brazilian musicians,” 385.

help.¹⁵⁶ The research in this area is lacking but a few studies have started to look at the connection between physical pain and MPA.

Comorbidities are often difficult to recognize. With MPA, there is significant symptom crossover and some that are connected may appear unrelated to an untrained eye. This is in part due to the issues with defining MPA and the perceived overlap with social anxiety and social phobia. As discussed in Chapter 2, the DSM-5 lists performance anxiety, but not MPA specifically, as a subset of social anxiety. The DSM-5 defines Social Anxiety Disorder in the following way and notes that this condition was previously referred to as Social Phobia:

Indicated by inordinate fear of situations in which the person may be subject to evaluation by others; such situations may include scenarios consisting of meetings, conversations with unfamiliar parties, being observed, or giving speeches or presentations. The person is greatly concerned that they may behave in inappropriate ways that would be negatively construed (leading to rejection, embarrassment, ridicule, or being offended). Social situations are avoided or endured with great anxiety.¹⁵⁷

Studies prior to the publication of the DSM-5 in 2013 use the term Social Phobia, whereas more recent studies tend to refer to Social Anxiety. To add to the confusion, some researchers believe there is a difference between Social Phobia and Social Anxiety.

There is some difficulty in discussing social anxiety as a comorbidity with MPA considering that the DSM-5 lists performance anxiety to be a subset of social anxiety rather than its own condition. Some researchers have described MPA as both a subset of social anxiety and comorbid with social anxiety, which is confusing and contradictory.

¹⁵⁶ Nagel, *Managing Stage Fright*, 167.

¹⁵⁷ Psychiatry Online, DSM Library, "Social Anxiety Disorder."

Kenny says, “comorbidity studies beg the question: if MPA is a social phobia, how can someone diagnosed with MPA have a comorbid social phobia?”¹⁵⁸

Multiple studies have shown that MPA has some significant differences to Social Anxiety.¹⁵⁹ One of the consistently reported differences between social anxiety and MPA is the determination of musicians to remain in performance situations and their chosen career despite feeling threatened and overwhelmed. People with social anxiety are far more likely to avoid situations in which they feel uncomfortable.¹⁶⁰ They are often particularly concerned about the opinions of others and while that is part of MPA, musicians tend to be more aware of the pressure they put on themselves. Those with social anxiety tend to have quite low expectations of themselves within situations they find uncomfortable. Musicians who suffer with MPA often hold themselves to extremely high standards and struggle to accept anything less than a perfect performance.¹⁶¹ While this might be perceived as admirable it can actually lead to some of the comorbidities associated with MPA.

Musicians with MPA also believe that their fears are rational whereas many people who suffer with social anxiety are aware of the irrational nature of their fears.¹⁶² The desire for perfection within the performing arts, as well as the nature of auditions and examined performances, leads musicians to hold themselves to an impeccable standard at all times. Recitals for students are often the final hurdle in achieving their degree which

¹⁵⁸ Kenny, *The Psychology of Music Performance Anxiety*, 66.

¹⁵⁹ Kenny, Driscoll and Ackermann, “Psychological Well-Being,” 18.

¹⁶⁰ Patrick Gomez et al., “Prolonged performance-related neuroendocrine activation and perseverative cognition in low- and high-anxious university music students,” 8.

¹⁶¹ Kenny, Driscoll and Ackermann, “Psychological Well-Being,” 19.

¹⁶² Douglas H. Powell, “Treating Individuals,” 805.

puts a disproportionate amount of pressure on one approximately forty-five minute length performance. Auditions for orchestral positions are also extremely competitive. For a freelance musician, a poor performance could lead to not being asked back by an ensemble, reducing performing opportunities and income. It is therefore understandable that many students feel that their fears around performance are rational, where an optimal performance will propel them further into a career and a suboptimal one will not. These beliefs, while valid, can make it more difficult for MPA to be treated.

Physical pain in musicians is often attributed to poor technique, stamina, posture, and body awareness. While all of these factors certainly affect the level of pain a musician will feel on a day-to-day basis, their cognitive symptoms may also be a contributing factor to their physical pain levels.¹⁶³ Kenny and Ackermann conducted a study of professional orchestral musicians to determine the relationship between Performance-Related Musculoskeletal Pain (PRMD), Depression and MPA.¹⁶⁴ They found that not only was there a strong relationship between PRMD and MPA but there was also a strong relationship between PRMD and depression, as well as depression and MPA. The link between chronic pain and anxiety and depression in the general population is well documented with both chronic pain leading to anxiety and/or depression as well as anxiety and/or depression leading to some sort of chronic pain.¹⁶⁵ A small study in the general population found that anxiety tended to occur prior to the onset

¹⁶³ Dianna Kenny and Bronwen Ackermann, "Performance-Related Musculoskeletal Pain, Depression and Music Performance Anxiety in Professional Orchestral Musicians: A Population Study," *Psychology of Music* 43/1 (2015): 43.

¹⁶⁴ Ibid.

¹⁶⁵ Ibid., 44.

of chronic pain (77% of patients) but depression followed it (63%).¹⁶⁶ Therefore it is not surprising that there is a link between MPA and pain. What is concerning for musicians is that those with severe MPA could easily develop a PRMD that could lead to chronic pain, which in turn could lead to depression. Complicating matters further, they also found a group of musicians who experience the highest levels of pain who also deny any symptoms of depression. They suggested that this was caused by a condition where people present with physical symptoms instead of acknowledging their psychological distress.¹⁶⁷ It is also not unreasonable to suggest that musicians with a PRMD could develop MPA. Being in a significant amount of pain, especially if it is chronic, can cause stress and anxiety. For musicians this could lead to worrying about whether they will be able to perform at their optimal level while in pain. The connection between physical pain and mental health needs to be taken seriously by both educators and professional institutions, in order to better protect and support their musicians.

Kenny and Ackermann pointed out “in severely depressed patients with pain, treatment that focuses on pain management was not effective until the depression had been treated.”¹⁶⁸ Musicians may find treatments for any kind of physiological or psychological distress ineffective unless all their work-related problems are treated together. When surveying the participants in their study on the amount of physical exercise they engaged in, including yoga, swimming, jogging or other gym classes, Kenny and Ackermann found no difference in pain frequency or severity.¹⁶⁹ This is a

¹⁶⁶ Ibid.

¹⁶⁷ Ibid., 43.

¹⁶⁸ Ibid., 44.

¹⁶⁹ Ibid., 49.

particularly relevant point for educators to understand, given the increasing prevalence of Yoga for Musicians classes to assist with some of the physical issues. Students need to be made aware that the state of their mental health may have an impact on how their physiological symptoms respond to physical activities. A lack of understanding may lead to more distress.¹⁷⁰ In a study published in 1998, Osborne suggested:

We should treat both the debilitating symptoms of the disorder, in addition to reducing general vulnerability factors for lasting cure (Andrews, 1996), which should both reduce the specific and maintaining aspects of MPA, and the shared susceptibility to the emergence or maintenance of other disorders.¹⁷¹

Despite the longevity of this knowledge, little has been done to improve the awareness of musicians surrounding the risks of MPA and comorbidities. Music educators need to take all the issues connected with MPA seriously if there is to be further progress in this area. Although many musicians will endure poor mental health due to the romanticization of the struggling artist, at some point a life in physical or mental pain is likely to force them to walk away from their chosen career. However, if music schools can successfully treat mental health alongside physical health, more musicians will be able to have better outcomes resulting in healthier and longer careers.

The majority of the research in this area has focused on anxiety disorders and MPA, with a few examining the relationship between depression and MPA. Kenny and Ackermann examined the relationship between the psychological health and physical

¹⁷⁰ Kenny, Driscoll and Ackermann, "Psychological Well-Being," 21

¹⁷¹ Margaret S. Osborne and John Franklin, "Cognitive processes in music performance anxiety," *Australian Journal of Psychology* 54/2 (2002): 92.

health of musicians, including the presence of MPA.¹⁷² Despite the small numbers of papers on this subject, there is one consistent factor. MPA frequently presents with symptoms of other psychological and/or physiological issues, sometimes to the level of diagnosable disorders. The most common problems are either psychosomatic or musculoskeletal.¹⁷³ Further research needs to take place to develop more efficient and reliable ways of diagnosing MPA and its comorbidities.

¹⁷² Kenny and Ackermann, "Performance-Related Musculoskeletal Pain," 43.

¹⁷³ Hildebrandt, "Increment of Fatigue," 48.

CHAPTER 4

AVAILABLE INTERVENTIONS FOR THE GENERAL HEALTH OF MUSICIANS, MUSIC PERFORMANCE ANXIETY AND ITS COMORBIDITIES

Although Music Performance Anxiety (MPA) is a problem amongst music students and professionals, it is only one of the issues affecting the health and well-being of musicians. As one study points out “while music has been linked with enhanced well-being across a wide variety of contexts, the professional pursuit of a music career is frequently associated with poor psychological health.”¹⁷⁴ There is also a distinct lack of consistent and high-quality research in this area. Most studies tend to focus solely on reducing MPA in relation to improving performance. While this is an attractive proposition for musicians, I think it is detrimental to only want to reduce MPA for the sake of improving performance. As was discussed in Chapter 3, MPA, left untreated, can lead to serious and lifelong health problems. However, it is ineffective to treat MPA in isolation. Discussions on the general health and well-being of musicians, including treating PRMDs, are warranted.

In recent years, a number of studies have been done to determine the general well-being of music students and professionals in comparison to the rest of the population and/or amateur musicians.¹⁷⁵ The consensus is that music students tend to rate their quality of life more negatively than either their non-music colleagues or amateur

¹⁷⁴ Sara Ascenso, Rosie Perkins, and Aaron Williamon, “Resounding Meaning: A PERMA Wellbeing Profile of Classical Musicians,” *Frontiers in Psychology* 9/1895 (2018): 1.

¹⁷⁵ Roberta Antonini Philippe et al., “Understanding Wellbeing Among College Music Students and Amateur Musicians in Western Switzerland,” *Frontiers in Psychology* 10/820 (2019): 1.

musicians as well as having a tendency to neglect health-promoting behaviors.¹⁷⁶ As has been discussed in Chapter 1, some schools have started to promote health and well-being by including courses or health days within the curriculum. However, studies from the past few decades that have researched the health and well-being of musicians have not been able to find any significant improvement in any aspect of health with which musicians struggle.¹⁷⁷ A change in approach would seem to be required within music education and the wider profession.¹⁷⁸ Educating ourselves on the subject of health and well-being in music students is a difficult task as the research is constantly being updated. This chapter serves to consolidate the current research in an attempt to streamline educational efforts. The effectiveness of health and well-being courses will also be discussed.

There is growing concern amongst researchers and educators with regard to the link between MPA and the overall mental and physical health of musicians. As can be seen from Chapter 3, there is the risk of serious consequences if the health and well-being of musicians is not taken more seriously by all those involved in the profession and education. A better approach would be to include the available treatments for MPA, within educational courses, alongside the advice musicians need to protect their general mental and physical health. We need to find an effective way to link the current research to those in the profession. Rather than include in-depth descriptions about each available treatment option, I will instead focus on the results. A list of studies organized by

¹⁷⁶ Philippe et al., “Understanding Wellbeing Among College Music Students,” 6.

¹⁷⁷ Kenny, Driscoll and Ackermann, “Psychological Well-Being,” 211.

¹⁷⁸ Philippe et al., “Understanding Wellbeing Among College Music Students,” 6.

treatment style and condition, as well as examples of health and well-being courses, is included in Appendix A for reference and further reading.

Multiple papers and dissertations have been written compiling the various therapies that can be used.¹⁷⁹ A number of papers review the current research and research methods.¹⁸⁰ The reviews have examined all the different styles of therapy for MPA. These include behavioral, cognitive, cognitive-behavioral (CBT), combined, pharmacological, and alternative therapies. The alternative therapies cover a range of methods including, but not limited to, yoga, Alexander Technique, biofeedback training and virtual reality exposure.¹⁸¹

The most recent systematic review of treatments for MPA was conducted in 2019 by Fernholz, et al.¹⁸² Despite reviewing a significant number of studies, the authors were not impressed with the quality of the research. They said, “the results of the present review impressively demonstrated that the research on MPA currently suffered from certain methodological weaknesses and is characterized by a high degree of heterogeneity.”¹⁸³ Their analysis showed that since the time that previous meta or systematic reviews have taken place, there has been little improvement in how research is undertaken for the treatments of MPA:

Statements regarding prevalence, risk factors and treatment of MPA are limited. It is mostly unclear which criteria were used to diagnose MPA. A definition of the disease, consistent terminology and use of validated measurement instruments are essential for further research...Cross-sectional studies, cohort studies and randomized control trials with clear diagnostic

¹⁷⁹ Kenny, “A Systematic Review of Treatments for Music Performance Anxiety.”

¹⁸⁰ Fernholz et al., “Performance Anxiety in Professional Musicians,” 2287.

¹⁸¹ Kenny, “A Systematic Review of Treatments for Music Performance Anxiety,” 195.

¹⁸² Fernholz et al., “Performance Anxiety in Professional Musicians.”

¹⁸³ *Ibid.*, 2303.

inclusion criteria and larger samples are needed in order to address a number of outstanding issues in this area of research.¹⁸⁴

Improving the quality of research is vital to understanding the best treatment options for MPA. The field would also benefit from better communication between the researchers from the fields of music and psychology. Due to the relative infancy of MPA research, it is perhaps understandable that most of the researchers seem to be more interested in experimenting with a new method rather than expanding on the research of older methods. The lack of repetition and controlled experiments can lead to inconclusive results and make it difficult to work out the most effective treatments. This can cause musicians, both educators and performers, to struggle to understand the best models for treating MPA, leading to an inefficient and frustrating trial and error approach.

Unfortunately, most of the studies across all forms of therapy use small sample sizes and poor methodology, which makes it difficult to ascertain their validity.¹⁸⁵ Nonetheless, reviewing these studies is important to effectively focus future research. I will briefly comment on the various options available and their success within studies.

Behavioral therapies focus on changing the behaviors that occur due to high anxiety levels. There are many types of behavioral therapy for MPA including: deep muscle relaxation training, systematic desensitization, guided imagery exercises, rhythmic breathing exercises, and free improvisation. Multiple studies have been done to ascertain the effectiveness of behavioral techniques.¹⁸⁶ Most studies have shown that behavioral therapies have a positive effect on reducing MPA. Currently, there is not a

¹⁸⁴ Ibid.

¹⁸⁵ Kenny, "A Systematic Review of Treatments for Music Performance Anxiety," 203.

¹⁸⁶ Brugués, "Music Performance Anxiety-Part 2," 165.

fully comprehensive study that compares the different types of behavioral therapies, making it impossible to determine which version of behavioral therapy might be most beneficial. One of the most relevant findings from the behavioral therapy research is the comparison to CBT. The study done by Kendrick et al. in 1982 showed that behavior rehearsal improved state anxiety and self-reported stress, but it was not helpful in reducing visual signs of anxiety and self-belief, for which CBT was more effective.¹⁸⁷ A study by Sweeney and Horan investigated whether either using behavioral therapies alone, cognitive therapies alone or combining them was more effective. They found that cue-controlled relaxation, a form of behavioral therapy, led to a reduction in MPA and anxiety as well as improved performances and a lower heart rate.¹⁸⁸ Combining the cue-controlled relaxation with cognitive restructuring did not show any additional increase in symptom reduction and in fact the heart-rate of the subjects was not reduced as much as it was in the cue-controlled relaxation alone.¹⁸⁹ Without further studies, it is difficult to tell whether behavioral therapy alone is better than when it is combined with cognitive therapy to relieve MPA. It has been pointed out that the study done by Sweeny and Horan had severe limitations including sample size and lack of instrument diversity among participants (only pianists were involved). However, researchers believe this study would be worth replicating after adapting it to address the limitations.¹⁹⁰

¹⁸⁷ Kendrick et al., "Cognitive and Behavioral Therapy for Musical-Performance Anxiety," 359.

¹⁸⁸ Gladys A. Sweeney and John J. Horan, "Separate and Combined Effects of Cue-Controlled Relaxation and Cognitive Restructuring in the Treatment of Musical Performance Anxiety," *Journal of Counseling Psychology* 29/5 (1982): 489.

¹⁸⁹ Sweeney and Horan, "Separate and Combined Effects," 493.

¹⁹⁰ Sophie L. Hoffman and Stephanie J. Hanrahan, "Mental Skills for Musicians: Managing Music Performance Anxiety and Enhancing Performance," *Sport, Exercise, and Performance Psychology* 1/1 (2012): 19.

Cognitive therapies involve changing the thought patterns that lead to destructive/negative behaviors. This involves replacing the negative thoughts with more rational ideas. There have been very few studies done that have only used cognitive based therapies. The study by Sweeney and Horan in 1982, did find that cognitive restructuring techniques alone are helpful with MPA, overall anxiety, lowering the heart rate and improving the level of performance.¹⁹¹ However, one study done by Patston in 1996 did not find that cognitive restructuring alleviates MPA.¹⁹² A more recent study in 2012 by Hoffman and Hanrahan also found that using cognitive therapy reduced the symptoms of MPA not only during the study but also at a one-month follow up, and improved performance compared to the control group.¹⁹³ While improving performance is not necessarily the most important part of MPA treatments, musicians are more likely to be interested in methods that can show this result. The researchers suggested that cognitive therapies are relatively cheap so are attractive to musicians and educational institutions. However, due to its relatively simple nature, this style of treatment might not be suitable for those with comorbidities as they only address the thoughts relating to MPA rather than examining the bigger picture.¹⁹⁴ The issue with examining the effectiveness of cognitive therapies is the lack of research done in this specific area.

CBT is largely seen as one of the most successful therapies for helping those who suffer with anxiety and anxiety disorders.¹⁹⁵ Unsurprisingly, it combines aspects of both

¹⁹¹ Sweeney and Horan, "Separate and Combined Effects," 493.

¹⁹² Kenny, "A Systematic Review of Treatments for Music Performance Anxiety," 188.

¹⁹³ Hoffman and Hanrahan, "Mental Skills for Musicians," 25.

¹⁹⁴ *Ibid.*, 26.

¹⁹⁵ "What is Cognitive Behavioral Therapy," American Psychological Association, accessed April 20, 2021, <https://www.apa.org/ptsd-guideline/patients-and-families/cognitive-behavioral>

behavioral and cognitive therapies. The cognitive therapy helps patients to recognize the unhelpful or irrational thought processes and the behavioral therapies are then built on the new rational thoughts, rather than the previous negative or catastrophic ones.¹⁹⁶ CBT can vary greatly in approach. Two examples of CBT being used to help with MPA include: combining self instruction, relaxation training, imagery and behavioral rehearsal, and combining self-instruction with progressive muscle relaxation.¹⁹⁷ There is evidence that CBT benefits those with MPA, including in post treatment follow-ups. Kenny notes that while the evidence suggests that CBT improves MPA symptoms better than drug interventions, the small sample sizes and limited studies make it difficult to conclude whether it is more effective than cognitive or behavioral therapies alone.¹⁹⁸

Tarrant and Leathem designed a CBT based course for use within music schools and other performance areas.¹⁹⁹ The course required students to attend six, hour-long group sessions, usually four-six students, where they discussed their thoughts and emotions relating to performance as well as learned relaxation exercises. Students were also encouraged to continue performing and critically assess their thoughts and emotions after each performance. The results from their study showed a reduction in MPA including at the four month follow up for the majority of students who completed the study (eleven out of fourteen). The researchers suggested that including performances within the sessions would have had an added benefit. This would have enabled the

¹⁹⁶ Ibid.

¹⁹⁷ Brugués, “Music Performance Anxiety-Part 2,” 166.

¹⁹⁸ Kenny, “A Systematic Review of Treatments for Music Performance Anxiety,” 189.

¹⁹⁹ Ruth Tarrant and Janet Leathem, “A CBT-based therapy for music performance anxiety,” in D. Einstein (Ed.), *Innovations and advances in cognitive behaviour therapy*, Sydney, AU: Australian Academic Press, 2007, 5.

students to engage in a guided discussion post-performance.²⁰⁰ While this study only had a very small sample, it is a good example of how a short course that is taught effectively can help many students.

Combined therapies usually involve a form of cognitive therapy, behavioral therapy, or CBT with an additional form of therapy such as biofeedback training or pharmacological therapies. Most of the studies trialing combined therapies have been shown to decrease the symptoms of MPA. One particular study of note combined CBT with the use of Buspirone (a common medication for anxiety).²⁰¹ The study tested the effects of CBT and placebo, CBT and Buspirone, and Buspirone alone on those with MPA. The results showed that CBT alone was more effective in treating MPA than CBT combined with buspirone. Those in the placebo group showed a greater reduction in self-reported symptoms post-treatment than those taking the Buspirone.²⁰² Considering that a large proportion of musicians use beta-blockers to alleviate MPA symptoms, it is significant to note that CBT can be more effective.

Nagel et al. used a combination of cognitive restructuring techniques and biofeedback training to successfully lower the levels of MPA in music students.²⁰³ The course involved a mixture of group and individual settings over six weeks and would be a good model for schools to use. Within the group settings the instructor used an individualized approach, giving the students different cues depending on their answers to a survey. A personalized approach is necessary when treating MPA and while it may

²⁰⁰ Ibid., 11.

²⁰¹ Kenny, "A Systematic Review of Treatments for Music Performance Anxiety," 191.

²⁰² Ibid.

²⁰³ Julie Jaffee Nagel, David P. Himle, and James D. Papsdorf, "Cognitive-Behavioural Treatment of Musical Performance Anxiety," *Psychology of Music* 17/1 (April 1989): 12.

seem daunting to schools from a budgetary standpoint, it is important to note that individualized therapy can be achieved in group settings.

Multiple studies have been done to compare the efficacy of different types of beta-blockers including Atenolol, Metoprolol, Nadolol, Oxprenolol, Propranolol and Pindolol. It has been shown that some are more helpful than others.²⁰⁴ If a musician is taking beta-blockers without medical supervision they may be unaware of this, leading them to take a less effective drug and not successfully treating the issue. Some people also experience side effects when using beta-blockers, particularly if they are on the wrong dosage.²⁰⁵ The efficacy of beta-blockers is dependent on them being taken under medical supervision and this needs to be communicated to all musicians.

Studies on the efficacy of beta-blockers in relieving MPA have also shown that they tend only to be helpful for those who primarily experience physiological symptoms such as heart palpitations and shaking.²⁰⁶ If a person has negative cognitions purely in regard to their physiological symptoms then it is likely that beta-blockers will help reduce their MPA. However, considering that the most significant indicator of severe MPA is a wide range of negative cognitive symptoms, it is not surprising that beta-blockers are less helpful than many hope.

Other interventions using multiple therapies have taken place. They usually entail combining either cognitive, behavioral or CBT with an alternative therapy. These include but are not limited to: biofeedback training, group music therapy, Eriksonian resource

²⁰⁴ Ibid.

²⁰⁵ Ibid.

²⁰⁶ Kenny, "A Systematic Review of Treatments for Music Performance Anxiety," 203.

retrieval, hypnotherapy, Alexander Technique, stress inoculation training, audition workshops, meditation, vocal and physical skills training, yoga, and neuro-linguistic programming. All the studies undertaken showed signs that MPA was reduced, however, most used very small sample sizes and have not been replicated.²⁰⁷ The inconclusive results make it very difficult to compare and assess the validity of each treatment.

Alternative therapies are also used alone. In the various analyses of the effectiveness of therapies to treat MPA, it is the alternative therapies that are most frequently criticized for being weaker, usually due to a lack of control groups or having very small sample sizes.²⁰⁸ For example, the use of meditation to reduce performance anxiety has been researched a few times. Some studies have shown it has had a positive effect whereas others have not.²⁰⁹ This inconsistency in results is why it is difficult to advocate for the sole use of alternative therapies in schools at this point. It is worth noting that as some studies have shown a reduction in MPA, they do warrant further investigations using improved research methods.

Most educational institutions only offer one style of an alternative therapy, despite the small amount of evidence for their effectiveness. Many professional musicians will have used some kind of alternative therapy in their careers, most commonly, yoga, Alexander Technique, Feldenkrais and meditation. This could either be because they have derived general health benefits from them, or because they have helped reduce their MPA symptoms. Some teachers opt to qualify as instructors in these areas and can coach

²⁰⁷ Fernholz et al., "Performance Anxiety in Professional Musicians," 2301.

²⁰⁸ Kenny, "A Systematic Review of Treatments for Music Performance Anxiety," 183.

²⁰⁹ Brugués, "Music Performance Anxiety-Part 2," 167.

other musicians, including their students, in these methods. While there is definitely a proven benefit in having musicians help other musicians, the evidence suggests the alternative therapies may only help a small proportion of students, particularly with regard to reducing MPA. As well as not being efficient in solving the problem, this could also lead to a large proportion of students feeling disheartened and believing that nothing will help. Using a wider range of therapies, in conjunction with each other, is likely to be a better approach to address the problems of MPA and its comorbidities. This should ensure that more students have positive outcomes.

Acceptance and Commitment Therapy (ACT) falls under the umbrella of CBT but differs in its approach and goals.²¹⁰ Rather than aiming to reduce the symptoms of MPA, ACT aims to create a more flexible mental state when the subject/musician is in an anxious state and experiencing unwanted symptoms.²¹¹ There have been five studies done that have examined the effectiveness of ACT on MPA.²¹² All the studies found that despite it not being an initial objective, all the subjects did have a reduction in their MPA. They developed greater psychological flexibility enabling them to accept their symptoms and thoughts. This meant they could experience their MPA related thoughts but not hold so much weight by them. In general, this meant that not only did the subjects stop avoiding situations where they experienced MPA, they also performed at a consistently higher level.

²¹⁰ Juncos et al., "Acceptance and commitment therapy for the treatment of music performance anxiety: a pilot study with student vocalists," *Frontiers in Psychology* 8/986 (2017): 1.

²¹¹ Teresa A. Shaw, David G. Juncos, and Debbie Winter, "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* 11/882 (2020), 1.

²¹² *Ibid.*, 2.

The study by Shaw et al. trained a singing teacher in Acceptance and Commitment Coaching (ACC), a form of ACT to see if music educators could successfully help their students to reduce MPA.²¹³ The teacher participated in seven hours of ACC training, and successfully administered six one-hour sessions to the student. By the end of the sessions the student noticed a significant shift in their mindset. They were more willing to perform in studio classes as well as take auditions.²¹⁴ The results from this study are encouraging. However, it must be noted that relying on music teachers to administer this sort of therapy could be difficult. It requires teachers to be willing to embrace the concept and receive training in the field of ACC which, considering the already demanding schedules of most music educators, is a challenge.

Psychological counseling, psychodynamic therapy and psychoanalytic therapy have all been shown to have a positive effect on MPA.²¹⁵ In one study 60% of musicians said they found counseling to be beneficial.²¹⁶ McGinnis and Milling noted that this style of treatment can be helpful for musicians' suffering with MPA, but that it is favorable when the therapist has a clear understanding of what life as a musician entails.²¹⁷ Small studies have demonstrated that both long term psychoanalytical and short term psychodynamic therapies can be useful.²¹⁸ Having specialized therapists available to music students would be more effective than referring them to the school's counseling

²¹³ Ibid.

²¹⁴ Ibid.

²¹⁵ Fernholz et al., "Performance Anxiety in Professional Musicians," 2293.

²¹⁶ Ibid., 2289.

²¹⁷ Anne M. McGinnis and Leonard S. Milling, "Psychological Treatment of Musical Performance Anxiety: Current Status and Future Directions," *Psychotherapy: Theory, Research, Practice, Training* 42/3 (2005): 371.

²¹⁸ Fernholz et al., "Performance Anxiety in Professional Musicians," 2293.

team. Some students may also not be interested in participating in therapy sessions so need to know they can access a wide variety of treatments.²¹⁹

When virtual reality exposure training was used as part of a CBT study, it was shown to have significantly reduced MPA symptoms as well as significantly improve performance quality.²²⁰ High quality virtual reality equipment is expensive and studies have shown that the use of headsets is less effective than creating a virtual performance space.²²¹ For this reason, virtual reality therapy may not be available at small music schools, but those that are attached to a larger university may find that this is something that can be utilized by their students. For example, the Temple University Charles Library, Philadelphia, USA, has a virtual reality studio that could be adapted to enable the music students to practice their performances.²²²

One benefit of virtual reality is that students can be exposed to performance settings without the worry of judgement, either positive or negative, from the audience. However, for virtual reality training to be effective the musicians do need to feel as though they are in a real-life performance situation.²²³ Repeated exposure training is something that many musicians believe in, so educators are quite likely to engage with this method, which will in turn motivate students to get involved.

Music therapy has long been used to reduce the symptoms of stress, anxiety and depression but over the past few decades it has also been shown in four separate trials to

²¹⁹ Shaw et al., "Piloting a New Model," 5.

²²⁰ Fernholz et al., "Performance Anxiety in Professional Musicians," 2290.

²²¹ Josiane Bissonnette et al., "Virtual Reality Exposure Training for Musicians: Its Effect on Performance Anxiety and Quality." *Medical Problems of Performing Artists* 30/3 (September 2015): 176.

²²² "VR/Visualization Studio," Temple University Libraries, accessed April 20, 2021, <https://library.temple.edu/spaces/immersive-lab>

²²³ Bissonnette et al., "Virtual Reality Exposure Training," 169.

be beneficial in the treatment of MPA.²²⁴ Kim investigated the effect of two different music therapy approaches on music students.²²⁵ One method used improvisation and the other used progressive muscle relaxation paired with music. Both methods were effective in reducing MPA symptoms, however some students did not feel comfortable improvising and found that this method created more anxiety. It would seem that using music therapy to reduce MPA is a viable option and could be implemented in schools, especially those with music therapy programs.

It could be beneficial if a school were to connect those in the music therapy program with those in performance and education. This is easy to suggest from a theoretical standpoint. However, a conflict of interest could arise if music therapy faculty are expected to run such a course without sufficient training in treating music performance anxiety.²²⁶ A course for music education students covering how music therapy could be used in helping reduce MPA would also benefit the next generation of performers. A course directed by a suitably trained music therapy faculty member for music performance students could be effective in reducing MPA. It could also be a cost-effective way of helping students as, in theory, a school would not need to hire a new member of staff. One of the benefits of using a music therapy course to treat MPA is that it will be run by someone who is musically trained.²²⁷ In an early study from 1987 by Ostwald he noted that “music therapists with their music backgrounds have the skills to facilitate emotional rapport with performer patients, to select appropriate topics for

²²⁴ Fernholz et al., “Performance Anxiety in Professional Musicians,” 2293.

²²⁵ Kim, “The Effect of Improvisation-Assisted Desensitization,” 165.

²²⁶ Michael Zanders, email message to author, February 18, 2021.

²²⁷ Kim, “The Effect of Improvisation-Assisted Desensitization,” 167.

discussion and further analysis, and to steer the psychotherapeutic dialogue in and out of troubled waters.”²²⁸ Unlike other forms of therapy, music therapists do not need extra training to understand the mindset of musicians given that they are part of the profession.

Sports or performance psychology is often discussed amongst musicians as being one of the most useful tools at their disposal. Many of the most successful musicians have utilized the services of a sports psychologist to help them achieve peak performance.²²⁹ The vast majority of music teachers have an array of sports psychology books. A lot of musicians have anecdotal evidence that these methods work for them. However, there are only a few studies that have examined whether sports psychology style interventions help improve MPA.

In 2014 Osborne et al. investigated whether a sports psychology style course could be beneficial for musicians during their studies.²³⁰ The study used a centering technique designed by Don Greene — an eminent performance psychologist and the second author of the study. They also employed strategies from his *Audition Success* and *Performance Success* workbooks.²³¹ There were improvements in regulating performance energy, self-belief and confidence, focus and present-moment awareness, concentration, recovery from adversity, and mental toughness. Students were also more willing to “confront their fears in anxiety-provoking performance circumstances, and accepted the

²²⁸ Ibid.

²²⁹ “About Dr. Greene,” *Winning on Stage*, accessed March 10, 2021, <https://www.winningonstage.com/about-ppts/>.

²³⁰ Margaret S. Osborne, Don J. Greene, and Don T. Immel, “Managing Performance Anxiety and Improving Mental Skills in Conservatoire Students through Performance Psychology Training: A Pilot Study,” *Psychology of Well-being* 4/1 (2014): 1.

²³¹ Ibid., 7.

risk of failure in striving for success.”²³² However, there was not a significant statistical improvement in the ability to regulate and control energy in high performance situations, particularly when it related to MPA.²³³ This result is similar to other studies involving sports psychology style models.

In a study from 2011, Clark and Williamon noted that despite the results saying there was no evidence to suggest an improvement in state or trait anxiety, the subjects said they felt that they had greater control over their performance anxiety symptoms.²³⁴ The subjects developed skills that enabled them to change their perceptions of anxiety and gave them different approaches to help manage their symptoms. This is similar to results achieved through successful ACT. For this reason, sports psychology style courses should not be discounted despite the evidence being inconclusive. They are successful in helping musicians with multiple aspects of their performance and due to their popularity amongst professionals, music educators are likely to be enthusiastic about their students taking such a course.

Multiple studies have looked at the most effective ways of preventing and/or treating PRMDs. Most studies have focused on PRMDs in professional musicians and have found that a significant number suffer from work-related pain.²³⁵ One study found 84% of professional musicians had dealt with PRMDs during their career and 50% were currently struggling.²³⁶ A study that examined how many students were struggling with

²³² Ibid., 12.

²³³ Ibid.

²³⁴ Terry Clark and Aaron Williamon, “Evaluation of a Mental Skills Training Program for Musicians,” *Journal of Applied Sport Psychology* 23/3 (2011): 355.

²³⁵ Irina Foxman and Barbara J. Burgel, “Musician health and safety: Preventing playing-related musculoskeletal disorders,” *AAOHN journal* 54/7 (2006): 310.

²³⁶ Kenny and Ackermann, “Performance-Related Musculoskeletal Pain,” 43.

PRMDs was low in comparison, less than 20%.²³⁷ Although this is good news for music educators, as the vast majority of students are physically healthy, the decline could be due to a lack of formal health education. Music educators, administrators and students all need to take responsibility to ensure that there is sufficient preparation to cope with a career in performance. While courses such as Alexander Technique or yoga for musicians are often thought to be effective, it would seem that musicians need more specific and individualized treatment programs.²³⁸

In the professional world, physical therapy has been proven to be an effective approach to manage PRMDs.²³⁹ In some serious cases musicians need referrals to other medical professionals for more radical treatment.²⁴⁰ However, it was pointed out by musicians in one study that physical therapists need to improve their knowledge specific to the music industry.²⁴¹ Providing access to specialized physical therapy within education would not only help the musicians that are injured, but they could also provide musicians with preventative strategies.

Education surrounding PRMDs is necessary. Not only will this help musicians notice the early signs of injuries, it will also help them to understand that concealing injuries and playing through the pain is likely to lead to a professional life that is uncomfortable and painful as well as short-lived.²⁴² Musicians should not think that pain

²³⁷ Suze Steemers et al., "Health Problems in Conservatoire Students: A Retrospective Study Focusing on Playing-Related Musculoskeletal Disorders and Mental Health," *Medical Problems of Performing Artists* 35/4 (December 2020): 217.

²³⁸ Clark and Williamon, "Evaluation of a mental skills training program," 345.

²³⁹ Chan, Driscoll and Ackermann, "The usefulness of on-site physical therapy," 2.

²⁴⁰ *Ibid.*, 1.

²⁴¹ *Ibid.*, 7.

²⁴² Steemers et al., "Health Problems in Conservatoire Students," 218.

is a normal part of their life. It must be emphasized that PRMDs are often interlinked with the mental health of individual musicians.²⁴³ Exclusively providing treatment for PRMDs, however effective it might be, is unlikely to be fully successful without sufficient psychological support as well.

Health and well-being courses within the music education curricula are becoming more common. In theory, they sound like the answer to a lot of the problems that have been mentioned. However, if they are not established using evidence-based research, then in practice they are not always as effective as might be hoped. Educating musicians on their health in relation to their careers is vital in order to see an improvement in work-related issues in musicians. Health and well-being courses that include information on MPA and its comorbidities, PRMDs and general health management are essential. Courses without the necessary support systems such as on-site treatment options for MPA and physical therapy are unlikely to work.

Money is often a barrier to both students and educators when it comes to prioritizing and protecting the health of musicians. Ideally, all music schools would have built-in performance centers that cater to students' physical and mental health. While this would certainly be beneficial to all, considering the ever-tightening budget restrictions in education and the arts, it is impractical to expect most schools to include such a center. It is also not the only thing that schools need to be doing to ensure long and healthy careers for their musicians.

²⁴³ Kenny and Ackermann, "Performance-Related Musculoskeletal Pain," 43.

A recurring conclusion made by researchers is that students seem to have very little interest in their health and well-being, unless they are struggling, or have previously struggled, with an issue.²⁴⁴ However, some research has shown that once educated on the subject of musicians' health, students and professionals take more of an interest in the topic.²⁴⁵

Dr. Spahn et al. found that both the psychological and physical health of students improved after taking part in the course "Physiology of Music and Performing Arts Medicine" at the Zürich Conservatory in the summer semester of 1999.²⁴⁶ As has been previously discussed in Chapter 1, musicians who are already dealing with health issues are more likely to take part in studies and classes for their health. Those with pre-existing health problems have more room for health improvement.²⁴⁷ This could skew the results slightly and needs to be taken into consideration when interpreting outcomes of the studies. If the course was compulsory for all students, including those without any injuries or mental health concerns, the overall results might not show quite such a significant improvement. However, a compulsory health and well-being course for all students will raise awareness of potential problems. One important result from the research showed that students who took part in the class were extremely willing to recommend it to their fellow students.²⁴⁸ With greater levels of peer support, students are more likely to be eager to take their mental and physical health seriously.

²⁴⁴ Claudia Spahn, Horst Hildebrandt, and Karin Seidenglanz, "Effectiveness of a prophylactic course to prevent playing-related health problems of music students," *Medical Problems of Performing Artists* 16/1 (2001): 29.

²⁴⁵ Ibid.

²⁴⁶ Spahn, Hildebrandt and Seidenglanz, "Effectiveness of a prophylactic course," 24.

²⁴⁷ Ibid., 30.

²⁴⁸ Ibid.

A similar study was undertaken in 2010 at the Freiburg University of Music. Zander et al. The authors found that there was a direct improvement in the mental health of the musicians after taking the course. However, the results were less significant for their physical health. The results from the study show that a significant number of students come to higher education with pre-existing physical issues which need therapeutic care. The authors suggest that most of these issues cannot be fixed by classes on preventative health alone, and some students need additional referrals to specialists.²⁴⁹ However, educating students on physical health is likely to help those who are injury free to stay that way in the future. Providing as many students as possible with knowledge on preventative care will also help those who are already injured avoid any further problems.

If a teacher believes that taking a health and wellness class will detrimentally detract from the time that could be spent practicing, then their students are more likely to avoid taking such a class.²⁵⁰ For this reason, it is necessary to include development education opportunities for teachers/faculty, helping them to understand the importance of such classes.²⁵¹ At the very least, mental and physical health awareness training needs to be available to faculty and administrators at music schools, with a particular emphasis on the issues that musicians face. Schools need to encourage faculty members to be actively involved in educating themselves on the health issues musicians are likely to experience to help lower the percentage of musicians who struggle in future generations. Providing mental health first aid training for willing teachers and making them known to

²⁴⁹ Mark F. Zander, Edgar Voltmer and Claudia Spahn, "Health Promotion and Prevention in Higher Music Education: Results of a Longitudinal Study," *Medical Problems of Performing Artists* 25/2 (June 2010): 54.

²⁵⁰ Philippe et al., "Understanding Wellbeing Among College Music Students," 6.

²⁵¹ Nagel, *Managing Stage Fright*, 166.

the students would be a good first step. A collaborative approach between administrators, teachers and students will help achieve the best possible outcomes for students and professionals.

CHAPTER 5

FIVE EXAMPLES OF HEALTH AND WELL-BEING INITIATIVES IN MUSIC EDUCATION FROM EUROPE AND THE USA

An increasing number of music schools throughout the world are attempting to promote better health within their student body through curriculum changes or by creating medical centers for the performing arts. Analyzing the different models at selected institutions provides ideas for possible implementation at music schools that have not yet made changes to include health and well-being initiatives in their programs. Five schools across the USA and Europe, which offer their students varying degrees of support, have been used as examples: The Freiburg University of Music, Germany, The Royal Northern College of Music (RNCM), UK, The Juilliard School, USA, University of Colorado Boulder, USA, and Lawrence University, USA. These schools were chosen because they represent a wide range of school sizes and because they share a significant amount of information online about their health and well-being initiatives. Further research should evaluate the health and well-being facilities at other schools. All the information provided below is available freely on the website of the respective institution.

Freiburg University of Music

The Freiburg University of Music and the Albert-Ludwig University of Freiburg have collaborated to create the Freiburg Institute of Musicians' Medicine (FIM). Not only does the FIM support students and faculty at the Freiburg University of Music, it is available for use by members of the community with relevant professions or hobbies and also teaches medical students in the field of performing arts medicine:

The Freiburg Institute for Musicians' Medicine (FIM) at the University Medical Center Freiburg is a highly specialized facility for professional singers and instrumentalists, for amateur musicians in choirs and in the instrumental field as well as for members of the voice-intensive professions such as teachers, actors etc. In addition, the FIM is the responsible treatment facility within the university hospital for all patients with phoniatic and voice medicine issues.²⁵²

The areas that FIM treats are as follows: voice therapy, therapy for hearing disorders, musculoskeletal pain and problems in instrumentalists, performance anxiety, and psychotherapy.²⁵³ It is of particular interest that they separate performance anxiety and psychotherapy as areas they address, underlining the idea that musicians can be dealing with both of these issues and may need separate treatments.

FIM describe their treatment for performance anxiety as "multimodal."²⁵⁴ They offer a number of different options including: behavioral performance training, mental Techniques, body-oriented approaches (relaxation procedures), one-on-one discussions

²⁵² "Treatment," Freiburg Institute for Musicians' Medicine, accessed May 11, 2021, <https://fim.mh-freiburg.de/behandlung/>

²⁵³ "Patient Care," Freiburg Institute for Musicians' Medicine, accessed May 11, 2021, <https://www.uniklinik-freiburg.de/musikermmedizin/patientenversorgung.html>

²⁵⁴ "Therapy," Freiburg Institute for Musicians' Medicine, accessed May 11, 2021, <https://www.uniklinik-freiburg.de/musikermmedizin/patientenversorgung/therapie.html>

based on depth psychology, game and singing-related approaches and musical techniques and preventive approaches to reduce stage fright performing artists.²⁵⁵ While the FIM website does not go into great detail on these treatment methods, the list does show that they have a wide range of options for their patients. Research has shown that an individualized approach to performance anxiety is the most effective model because a treatment that works for one person may not work for another.²⁵⁶

The Freiburg University of Music also offers students several courses each semester to promote better health and well-being. In the fall semester of 2020, these ranged from courses on hearing physiology and hearing protection, to health for instrumental musicians, as well as classes on confidence and stage fright, and the Feldenkrais method. Most of these classes are electives, however the “Health in Instrumental Lessons” class is a requirement for all BA students who are on the artist/pedagogy course. The class focuses on the health and well-being of the students as well as establishing effective practice methods.²⁵⁷ It also includes advice on how to assess their current and future students with regard to physiological and psychological issues. Masters students are able to pick *Music and Medicine* as an elective.²⁵⁸ The teachers for the “Health in Instrumental Lessons” class are Dr. Claudia Spahn and Dr. Manfred Nusseck. Dr. Spahn is the head of the FIM and specializes in Prevention and Health

²⁵⁵ Ibid.

²⁵⁶ Clara Boyett, “Music Performance Anxiety, The Role Of Teachers In Addressing Anxiety,” 6.

²⁵⁷ “Health in Instrumental Lessons,” Freiburg Institute for Musicians’ Medicine, Digital Course Catalog, accessed May 11, 2021 <https://glarean.mh-freiburg.de/dvz/fachbereich/Freiburger%20Institut%20f%C3%BCr%20Musikermedizin>

²⁵⁸ “Studienplantabelle Master Musik,” Hochschule für Musik Freiburg, accessed May 11, 2021, https://www.mh-freiburg.de/fileadmin/Studium/Studienplaene_und_ordnungen/MasterMusik/Studienplaene/SPT_MM_Streicher_Blechbl_Harfe_Schlagzg.pdf.

Promotion for Musicians, Music Performance Anxiety and Physiological Basics and Methods for Instrumentalists.²⁵⁹ Her biography also indicates that she studied music for five years in higher education. Dr. Nusseck is a research assistant and academic employee at FIM and has done research on vocal and mental health for teachers.²⁶⁰ As has previously been discussed musicians often prefer the advice of other musicians rather than medical professionals, so having someone who is trusted and relatable running a course such as this should be considered as essential.

An exciting part of the FIM is that not only do they conduct research, but they also provide training for medical students at the Albert-Ludwig-University of Freiburg as well.²⁶¹ This ensures that increasing numbers of medical professionals are being given some training in musicians' medicine. This will make it easier for more musicians to access specialist care in the future. They have also built up a network of trusted specialist doctors in the surrounding area who they can refer music students onto, if necessary.²⁶²

The connection between the FIM and the Freiburg University of Music is arguably the closest to an ideal model for creating a supportive, multi-faceted and educational approach to musicians' health. The only aspect which could be improved is having a required course for musicians' health for all students which would help achieve the best possible outcomes.

²⁵⁹ "Dr. Claudia Spahn," University of Freiburg, accessed May 12, 2021 <https://www.med.uni-freiburg.de/en/faculty/our-professors-1/spahn-en>.

²⁶⁰ "Dr. rer. nat. Manfred Nusseck," Freiburg Institute of Musicians' Medicine, accessed May 12, 2021 <https://www.uniklinik-freiburg.de/musikermmedizin/mitarbeiter/dr-manfred-nusseck.html>.

²⁶¹ "Concept and activities," Freiburg Institute for Musicians' Medicine, accessed May 11, 2021, <https://fim.mh-freiburg.de/en/concept/>.

²⁶² Freiburg Institute for Musicians' Medicine, "Treatment."

Royal Northern College of Music

The Royal Northern College of Music (RNCM) is one of the leading conservatoires in the UK. There is a full-time lecturer in musicians' health and well-being, Professor Sara Ascenso, and there is a required course on the subject for undergraduate students.²⁶³ They also offer one on one Alexander Technique courses either as a one-off or as regular lessons.²⁶⁴ RNCM recently introduced a health and well-being aspect to the curriculum to complement the other support for mental and physical health issues that are available.²⁶⁵

Free counseling is offered on-site by three counselors who have experience working with performing artists. There are also four faculty members who are trained as mental health first aiders to offer guidance and support as well as to direct students to relevant resources both offsite and within the college.²⁶⁶

There is limited information online regarding the curriculum for the health and well-being courses, but the course description does say students “will receive weekly tuition in essential skills such as recording and editing, conducting, musicians' health, teaching skills, and websites, biographies and CVs.”²⁶⁷ While this course does cover musicians' health, a focused course purely on health and well-being might be more beneficial for students.

²⁶³ “Sara Ascenso,” RNCM, accessed May 20, 2021, <https://www.rncm.ac.uk/people/sara-ascenso/>.

²⁶⁴ “Support and Wellbeing,” RNCM, accessed May 5, 2021, <https://www.rncm.ac.uk/about/college-information/student-support-wellbeing/>

²⁶⁵ “Programme Specification, Bachelor of Music with Honours,” RNCM, accessed April 20, 2021, <https://www.rncm.ac.uk/uploads/RNCM-BMus-Programme-Specification-2021-22.pdf>

²⁶⁶ RNCM, “Support and Wellbeing.”

²⁶⁷ RNCM, “Programme Specification.”

Along with the six other conservatories in the UK, RNCM is part of the Healthy Conservatoires initiative. This research driven program:

Aims to inspire the creation of educational and professional environments that promote health and well-being. The Network provides a forum where members can engage with innovation and evidence-informed practice, as well as access peer support in creating and maintaining healthy conditions for studying and working.²⁶⁸

Students and faculty can register to be a part of the program and their website offers a range of resources for musicians' health and well-being.

Within RNCM, Professor Jane Ginsborg focuses her research in the following areas—preparation for expert performance, particularly singing, memory for music, and musicians' health and well-being.²⁶⁹ Professor Sara Ascenso, is also engaged in similar areas of research, particularly focusing on the well-being of classical musicians.²⁷⁰ Her role, as Lecturer in Musicians' Health and Wellbeing (the first of its kind in the UK), is to “continue to develop the health and well-being provision across the RNCM, ensuring that it is holistic, tailored to musicians' needs, research-based and embedded in the curriculum.”²⁷¹ Having members of staff who are researching the current topics surrounding musicians' health and well-being should ensure that the students have access to the most up-to-date advice.

RNCM is taking appropriate and additional steps to provide sufficient support for its students. It is committed and motivated to current and continuing research to help future generations of musicians. Their students would benefit from more on-site care,

²⁶⁸ “About,” Healthy Conservatoires, accessed May 6, 2021, <https://healthyconservatoires.org/about/>

²⁶⁹ “Jane Ginsborg,” RNCM, accessed May 20, 2021, <https://www.rncm.ac.uk/people/jane-ginsborg/>.

²⁷⁰ RNCM, “Sara Ascenso.”

²⁷¹ “Meet the RNCM's first Lecturer in Musicians' Health and Wellbeing,” RNCM, November 28, 2018, <https://www.rncm.ac.uk/blog/meet-the-rncms-first-lecturer-in-musicians-health-and-wellbeing/>.

particularly with regard to their physical health. If this is not possible then providing students with the information on local specialists would be an alternative.

The Juilliard School

The Juilliard School is one of the leading conservatories in the USA as well as being one of the wealthiest. It is a renowned center of excellence and offers very comprehensive physical and mental health services to the students.²⁷² The health and counseling services consist of complete medical services as well as on-site physical and occupational therapists. There is also a consulting orthopedic surgeon available who specializes in performing arts medicine. Although the counseling services do not specify that their staff are trained in working with musicians, considering that the center is for Juilliard students alone, it is highly likely that they are very experienced in dealing with the particular concerns of musicians. This is supported by the fact that the director of counseling at Juilliard was previously the director of the Institute for the Performing Artist at the Postgraduate Center for Mental Health.²⁷³

All the health and counseling services at Juilliard are on-site and free for students to use.²⁷⁴ Existing research has highlighted that there are two main reasons why students and professionals do not seek help for their injuries or mental health concerns. One is cost, and the other is lack of time/accessibility. By providing free on-site care for their

²⁷² “Health and Counseling Services,” Juilliard, Campus Life, accessed May 8, 2021, <https://www.juilliard.edu/campus-life/well-being/health-and-counseling-services>.

²⁷³ “William Buse, Staff Portrait,” Juilliard Journal, accessed May 8, 2021, <https://www.juilliard.edu/news/136316/william-buse-staff-portrait>.

²⁷⁴ Juilliard, Campus Life, “Health and Counseling Services.”

students, Juilliard enables students to have easy access to treatments which should then result in better outcomes.

From examination of the course catalog and syllabus for the music department online, it would appear that there are no required health and well-being courses for musicians. A course called *Juilliard Colloquium* is required for all “first time college students” in music, dance and drama. The course description is quite vague and it is difficult to tell exactly what is offered but it does say, “the curriculum is designed to promote an awareness of the skills and tools necessary for building a fulfilling career, not only as performing artists, but also as global citizens and advocates for the arts.”²⁷⁵ This course could therefore cover some aspects of health and well-being for musicians. As far as can be ascertained from published materials there are no additional electives offered on this particular subject. The dancers at Juilliard are required to take Alexander Technique and a course called *Self Care for Professional Performers*.²⁷⁶ Dancers are certainly stereotypically more prone to career ending injuries but no equivalent courses appear to be offered to musicians.

Juilliard also has an Assessment and Care Team (A.C.T.) who “assess the need for early supportive intervention and guidance for distressed or struggling students.”²⁷⁷ They are in place to monitor personal, academic, social, health, and financial concerns.

²⁷⁵ “Juilliard Colloquium,” Juilliard Catalog, accessed May 8, 2021, https://catalog.juilliard.edu/preview_course_nopop.php?catoid=33&coid=18203&_ga=2.212380118.372075837.1617292587-653883533.1617292587.

²⁷⁶ “Self Care for Professional Performers,” Juilliard Catalog, accessed May 8, 2021, https://catalog.juilliard.edu/preview_course_nopop.php?catoid=47&coid=26126&_ga=2.144568050.610630791.1622067574-1739734429.1622067574

²⁷⁷ “Assessment & Care Team (A.C.T.),” Juilliard Campus Life, accessed May 8, 2021, <https://www.juilliard.edu/campus-life/well-being/assessment-care-team-act>

A.C.T. is made up of faculty and administrators but students can also make referrals.²⁷⁸

This type of proactive pastoral care might seem over the top to some institutions but it means that student issues are likely to be addressed at an earlier stage.

Juilliard provides its students with extensive on-site facilities to address mental and physical health issues as they arise. However, research has shown that without education for both students and faculty, there is likely to be some reluctance to use these facilities. It is also unclear whether they offer assistance specific to MPA which could be beneficial for their students.

University of Colorado Boulder

The University of Colorado Boulder College of Music has set up the Musicians' Wellness Program to support their students.²⁷⁹ The program is currently directed by James Brody, a certified Alexander Technique teacher and the Associate Professor of Oboe. While the main focus of the Wellness Program seems to be centered around Alexander Technique, they also employ a psychologist, have connections with the campus physical therapy center, as well as offering students free hearing tests and subsidized hearing protection.²⁸⁰

Alexander Technique classes are offered for credit each semester at three levels: introductory, advanced, and graduate.²⁸¹ On top of this Brody offers one-on-one

²⁷⁸ Ibid.

²⁷⁹ "Musicians' Wellness Program," University of Colorado Boulder, College of Music, Accessed May 10 2021. <https://www.colorado.edu/music/academics/centers-and-programs/musicians-wellness-program>

²⁸⁰ I have not discussed hearing health much in this document but considering how much musicians rely on their hearing, losing it prematurely would obviously be a great source of stress. Proactive hearing tests and using earplugs are a good way to sustain hearing health.

²⁸¹ University of Colorado Boulder, "Musicians' Wellness Program."

assessments for students. In these sessions the student can invite their teacher to attend, if desired.²⁸² This seems to be a very effective way of getting teachers involved with their students' progression through any sort of injury or discomfort while playing. While there is some debate as to the efficacy of Alexander Technique when treating performance anxiety, it does have merit as a general body awareness course.

The psychologist on the Musicians' Wellness Program, Dr. Matthew Tomatz, is described as an embedded therapist. The website says he offers "years' of experience in many aspects of emotional health that frequently affect musicians, including performance anxiety and emotional blocks to success."²⁸³ He is also a professionally trained musician which provides him with personal experience on the specific issues faced by musicians. As well as providing individual counseling, he also offers a free non-credit course *Developing the Whole Musician* that covers multiple aspects of musicians' psychological well-being including "personal exploration, community involvement, and psychological inquiry."²⁸⁴ The course description also mentions learning how to "manage performance anxiety, develop confidence, and improve your overall sense of wellbeing."²⁸⁵ Importantly, Dr. Matthew Tomatz mentions using a range of techniques in the class including "performance psychology, group psychotherapy, mindfulness skills, and mind-body therapeutic methodologies."²⁸⁶ This will provide students with multiple coping mechanisms and the ability to help find the method that best works for them. It would

²⁸² Ibid.

²⁸³ Ibid.

²⁸⁴ Matthew Tomatz, "*Developing the Whole Musician*," Accessed May 11, 2021. https://www.colorado.edu/music/sites/default/files/attached-files/developing_the_whole_musician_statement1.pdf

²⁸⁵ Ibid.

²⁸⁶ Ibid.

appear from the CU Boulder online catalog of courses that there are no required courses on the subject of musicians' health offered to the students.

The link with the physical therapy department is certainly beneficial. The website for the Musicians' Wellness Program indicates that there are three physical therapists at the health center that are specially trained to help musicians and their particular physical struggles.²⁸⁷

The resources that are available through the Musicians' Wellness Program of CU Boulder offer students a great deal of support that is not available at other institutions. It also provides an example of a music school using resources that are already at the university to the benefit of their students. This is a model that could be employed by a great many institutions.

Lawrence University

Lawrence University in Wisconsin is a liberal arts college and a good example of how smaller schools can offer effective care for their students. The music school offers on-site physical therapy drop-in sessions once a week for quick assessments.²⁸⁸ While students are unable to be treated there long-term, it is a useful first stop and provides a resource to help determine whether further treatment is necessary. Students are often reluctant to seek answers outside school due to financial and time constraints, so this gives them an accessible way to get support. The school also offers free hearing tests and

²⁸⁷ University of Colorado Boulder, "Musicians' Wellness Program."

²⁸⁸ "Musicians' Health and Wellness," Lawrence University, Accessed May 10, 2021.
https://www.lawrence.edu/conservatory/about/health_wellness

subsidized hearing protection.²⁸⁹ The music school's inclusion of hearing health as part of their health and wellness initiative is admirable. Outside these two areas the music school offers weekly yoga classes, ice packs, and biofeedback facilities as well as a therapy dog.²⁹⁰ The yoga classes are helpful as a preventative tool and, if used appropriately, the biofeedback facilities could help musicians with MPA. Therapy animals have also been shown to relieve stress which is beneficial to all students. While ice packs may seem trivial, supplying them on-site helps students access them quickly without any financial concerns.

The music school at Lawrence offers two Alexander Technique courses; one is aimed at finding ease in daily life and the other is specifically aimed at teaching ease in performance. The class aimed at performers provides students with an opportunity to work with the teacher on performance and rehearsal/practice techniques in a studio setting. This could be very useful in reducing MPA if taught appropriately.

While the conservatory at Lawrence University may not have the extensive facilities of a larger school, they do provide their students with a selection of resource materials. They have a Musicians Health and Wellness tab on their website with information on musculoskeletal health, vocal health, hearing loss prevention, injury prevention, physical fitness, and stress and time management.²⁹¹ There are also links to the Lawrence Wellness Center that offer students counseling and mental health support

²⁸⁹ Ibid.

²⁹⁰ Ibid.

²⁹¹ Ibid.

but it would be more beneficial for the students if there were specialist support within the music school as well as a course on musicians' overall health and well-being.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

My hope is that with greater understanding more schools will start to implement a comprehensive health and well-being initiative at their institution made up of on-site care and compulsory courses for their students. I would add that, to ensure the school stays up-to-date with the research, a faculty member is employed or designated as a coordinator to monitor and be involved with performance arts medicine related research. They can oversee the curricula for any health and well-being classes as well as be a point of contact for students who need guidance to find appropriate resources.

It has been suggested throughout this monograph that educators need to have a better understanding of the health issues faced by musicians. For this reason I highly recommend they join the Performing Arts Medicine Association (PAMA), or the equivalent in their country, and take advantage of the educational resources on offer.²⁹²

Schools which have sufficient funds should set up the best mental and physical health support for their students. Those with financial constraints and therefore lacking in flexibility, should at the very minimum, provide appropriate guidance and options. There are always financial limitations when making critical decisions about curricula changes and implementing new strategies. However, these should be addressed in the context of achieving the long-term benefits and best possible outcomes for student musicians and

²⁹² “About,” Performing Arts Medicine Association, accessed May 20, 2021, <http://www.artsmed.org/about>

the wider profession. Appendix B is a suggested list of resources for schools to use or recommend to their students.

It would be ideal for all music schools to include a mandatory required course in health and well-being for students, covering all aspects of mental and physical health pertaining to the performing arts. Specialist instructors should be employed where required. The course should be at least one semester long with the option to take further electives for those who are interested in expanding their knowledge. To help students understand their own level of MPA they should be encouraged to take a Music Performance Anxiety screening, such as Kenny's M-PAI. This can be done under supervision if it makes the student feel more comfortable.

I do believe that music schools desperately need to provide better mental health support within their walls, rather than having to rely on the generalized support that is offered through the university. The research discussed makes it abundantly clear that musicians feel more comfortable talking to people who have experience and understanding of the difficulties faced in music.

Music students need to be made aware of the challenges they may face if they choose to continue to become a professional musician. While a career in music is not a guarantee of a life filled with health struggles, without sufficient education and preventative care, it is far more likely. Alongside their teachers and the administrators at educational institutions, students need to work responsibly to ensure issues can be addressed early on before they become overwhelming.

This monograph may make for uncomfortable reading at times but I believe with the correct approach and a few adjustments to the priorities within education, we have an

opportunity to ensure the life of a musician is not impaired by poor mental or physical health.

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APPENDIX A - STUDIES OF INTEREST

Health and Well-being Studies and Curricula

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Acceptance and Commitment Therapy

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APPENDIX B - SUGGESTED RESOURCES

Books

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- Wax, Ruby. *A Mindfulness Guide for the Frazzled*. London: Penguin Books Limited, 2016.

Online Resources

- “About Us.” Help Musicians. <https://www.helpmusicians.org.uk/about-us>
- Ackermann, Bronwen. “Psychological stressors and pain in musicians.” October, 18 2019. ÖGfMM Symposium, Vienna. <https://www.youtube.com/watch?v=py-rZRi7XqY>
- “Blog.” Sound Mind. <https://www.soundmindmusician.org/blog>
- “Educational Resources.” Australian Society for Performing Arts Health Care. <https://www.aspah.org.au/>
- “Find a Certified Mental Performance Consultant.” Association for Applied Sports Psychology <https://appliedsportpsych.org/certification/cmpe-directory/>
- “Health Resources.” British Association of Performing Arts Medicine. <https://www.bapam.org.uk/health-resources/>

- “Help Your Show Go On.” Australian Society for Performing Arts Health Care.
https://www.aspah.org.au/wp-content/uploads/2019/05/HelpYourShowGoOn_PDF.pdf
- “Literature.” Performing Arts Medicine Association. <http://www.artsmed.org/literature>
- “Medical Problems of Performing Artists.” Science and Medicine.
<https://www.sciandmed.com/mppa/>
- “Mental Health and Wellness Resources for the Music Industry.” Backline.
<https://backline.care/>
- “Mental Health First Aid.” Music Minds Matter.
<https://www.musicmindsmatter.org/mhfa>
- “Online Certificate Course.” Performing Arts Medicine Association.
<http://www.artsmed.org/symposium/online-certificate-course>
- “Online Courses.” Winning On Stage.
<https://www.winningonstage.com/products/#online-courses>
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<https://www.youtube.com/watch?v=MMWYeILPH5Q>
- “Want To Perform Better Under Pressure?” The Bulletproof Musician.
<https://bulletproofmusician.com/>
- “Welcome to Healthy Conservatoires.” Healthy Conservatoires.
<https://healthyconservatoires.org/>