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MUSIC PERFORMANCE AND ADHD:

A QUALITATIVE STUDY ON THE EXPERIENCES OF GRADUATE MUSIC

PERFORMANCE STUDENTS WITH ADHD

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MUSIC PERFORMANCE AND ADHD:  
A QUALITATIVE STUDY ON THE EXPERIENCES OF GRADUATE MUSIC  
PERFORMANCE STUDENTS WITH ADHD

A DOCUMENT APPROVED FOR THE  
SCHOOL OF MUSIC

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#### Dedication

This document is dedicated to all ADHD researchers with ADHD.  
“Nothing about us, without us.”

## **Acknowledgments**

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## **Abstract**

Attention Deficit Hyperactive Disorder (ADHD) is a neuropsychological disorder that may cause learning difficulties and a variety of comorbid issues. College-aged students with ADHD are at greater risk of low academic performance, issues with time management, disorganization, likelihood of academic probation, and withdrawal from classes. At the time of this writing, there was a large quantity of research related to music learning in children with ADHD. Additionally, researchers have explored issues with ADHD in professional classical musicians. As of now, research concerning ADHD in graduate music performance students is limited.

In this document, I employed a phenomenological case study approach to explore the experiences of two graduate music performance students with ADHD from major universities in the United States. In doing so, I uncovered insight into three themes: practice and teaching strategies, anxiety and musician performance anxiety (MPA), and loss of motor control. These themes were determined to have been affected by ADHD symptoms that participants encountered in studio lessons, practice sessions, rehearsals, and performances. Both participants consented to a 45 minute to 1-hour semi-structured interview.

Interview responses were first organized into narratives for each participant. Second, the data was summarized into three main themes reflective of each research question topic. Of the discovered strategies, I found the most insight into how the participants utilized interest for motivation. Additional information was ascertained regarding the relationship between ADHD and MPA and in the experiences of hyperfocus suggesting the need for further research. Implications include practice and teaching strategies for graduate music performance students

with ADHD along with future research concerning ADHD and MPA, hyperfocus, and motor control.

## CHAPTER 1: INTRODUCTION

*My interest in this topic began after a recent ADHD diagnosis. Like many people diagnosed later in life, I had struggled with anxiety and depression. I sought help and gained coping skills, but I still felt that I was not addressing the root of my issues. In the past I did play around with the idea of having ADHD, but I never moved forward through getting diagnosed. I was always a straight A student and never really missed deadlines. In fact, I was ranked 4<sup>th</sup> in my high school graduating class, so I thought that there was no way I could possibly have ADHD. I was no genius, but I was bright, and I managed well. My grades convinced my teachers and I that I was doing well, but inside I was struggling. As I continued getting treatment for depression and anxiety while pursuing my doctorate, I discovered I had issues with perfectionism. In my practice sessions I would often get frustrated and angry at failing to meet my high standards of performance. It was debilitating, draining, and I felt that it hurt my progress. After a google search, I found a book about perfectionism and started to incorporate some of the suggested coping tools. I began setting realistic goals for my practice sessions and homework. I was getting better but still felt I was not getting to the root of the issue.*

*I finally had enough and began the process of getting diagnosed. After I received my official ADHD diagnosis I began connecting the pieces. Yes, I was a bright student in high school and college, but looking back, I would often pull all-nighters right before deadlines. During class and lectures I would often daydream and become lost in my thoughts. When it came time to start homework, I would get extremely frustrated because I was so lost. So, most of the time I would have to teach myself the material. My ADHD also caused issues in my practice sessions. It was difficult to address areas of my playing*

*that required an immense amount of focus. I also struggled with practicing the technique and repertoire that I did not find interesting. So, while I felt like I was practicing and staying busy, I was not really making as much progress as I would have wished. To sum it all up, living with untreated ADHD made everything so much more difficult and I was only able to survive by using unhealthy coping skills. Perfectionism became my best friend to help me cope through all the stress of living life with untreated ADHD.*

*After getting ADHD treatment, I felt that life became easier. In my grad courses I could finally listen to lectures in class and not feel so lost when completing assignments. My reading comprehension improved drastically, and I could read through articles more efficiently. I also learned the valuable lesson of asking for help from faculty and friends. I finally felt organized in my practice sessions, and I brought novelty to all the repertoire and etudes I would avoid. I could finally enjoy watching a movie with my wife and not let my brain wander into thinking about the work I have waiting for me at home. Things have improved and continue to improve through treatment and learning more about my ADHD. I hope that my story and this document will provide educators with the knowledge to better assist their students with ADHD and I hope it will provide some assistance to musicians with the disorder. ADHD truly affects all aspects of your life and treatment can help you enjoy life and the learning process.*

## Attention Deficit Hyperactivity Disorder (ADHD)

Attention Deficit Hyperactivity Disorder (ADHD) is a neuropsychological disorder that causes emotional and learning challenges.<sup>1</sup> According to the American Psychiatric Association, ADHD affects approximately 5% of children and 2.5% of the adult population in the US.<sup>2</sup> ADHD symptoms fall into the categories of inattentive, hyperactive, and impulsivity.<sup>3</sup> Students can be labeled as inattentive and hyperactive, predominately inattentive, or predominantly hyperactive with symptoms ranging from less to more intensive.<sup>4</sup> Early in its diagnosis as a disorder, physicians believed that children would outgrow ADHD in adulthood. Longitudinal studies have proven otherwise, indicating people displaying symptoms into and throughout adulthood.<sup>5</sup>

### ADHD in College-Aged Students

When considering the college student population, 2–8% of students self-reported symptoms associated with ADHD at the beginning of the 20<sup>th</sup> century.<sup>6</sup> College-aged students with ADHD reportedly demonstrated a range of side effects resulting in: low academic performance, issues with time management, disorganization, likelihood of academic probation, and withdraw from classes—all greater when compared to students without ADHD.<sup>7</sup> Aside from academic issues, adults with the disorder were more likely

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<sup>1</sup> Christy Oslund, *Supporting College and University Students with Invisible Disabilities : A Guide for Faculty and Staff Working with Students with Autism, AD/HD, Language Processing Disorders, Anxiety, and Mental Illness* (London : Jessica Kingsley Publishers, 2014), 62.

<sup>2</sup> American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders* (D.C., WA: American Psychiatric Publishing, 2013), 61.

<sup>3</sup> Lisa L. Weyandt and George J. DuPaul, *College Students with ADHD: Current Issues and Future Directions* (New York, NY: Springer New York, NY, 2013), 2-3.

<sup>4</sup> Oslund, *Supporting College and University Students with Invisible Disabilities: A Guide for Faculty and Staff Working with Students with Autism, AD/HD, Language Processing Disorders, Anxiety, and Mental Illness*, 57; Weyandt and DuPaul, *College Students with ADHD: Current Issues and Future Directions*, 9.

<sup>5</sup> Weyandt and DuPaul, *College Students with ADHD: Current Issues and Future Directions*, 9.

<sup>6</sup> Weyandt and DuPaul, *College Students with ADHD: Current Issues and Future Directions*, 9.

<sup>7</sup> Weyandt and DuPaul, *College Students with ADHD: Current Issues and Future Directions*, 11.

to have been arrested, exhibit anger management issues, attempt suicide, and have an antisocial diagnosis than typical adults.<sup>8</sup> Additionally, those diagnosed with ADHD have displayed high anxiety rates as well as issues with alcohol and drug dependency.<sup>9</sup> Despite these concerns, intelligence levels of college students with ADHD did not significantly differ from students without the disorder.<sup>10</sup> Oslund reported that students with the disorder could see connections where others do not and show a high energy for projects that engage them.<sup>11</sup> Given the extant knowledge on ADHD, it is evident that the disorder can be a major issue for some individuals in college. Yet it remains unknown to what extent ADHD is an issue for *graduate* college students.

### **ADHD and Anxiety**

Anxiety occurs when individuals experience excessive fear of a future threat which can lead to avoidant behaviors and panic attacks.<sup>12</sup> It is understood that adults with ADHD are prone to comorbid disorders such as anxiety.<sup>13</sup> Tsang et al. found in their clinician-referred sample that one-third of ADHD children and adolescents had an anxiety disorder and were more likely to exhibit severe symptoms of ADHD.<sup>14</sup> Schatz

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<sup>8</sup> Weyandt and DuPaul, *College Students with ADHD: Current Issues and Future Directions*, 11-14.

<sup>9</sup> Oslund, *Supporting College and University Students with Invisible Disabilities : A Guide for Faculty and Staff Working with Students with Autism, AD/HD, Language Processing Disorders, Anxiety, and Mental Illness*, 63-64.

<sup>10</sup> Lisa L. Weyandt, Linda Mitzlaff, and Laura Thomas, "The Relationship between Intelligence and Performance on the Test of Variables of Attention (TOVA)." *Journal of Learning Disabilities* 35, no. 2 (March/April 2002): 117, accessed September 26, 2023, <https://doi.org/10.1177/002221940203500203>.

<sup>11</sup> Oslund, *Supporting College and University Students with Invisible Disabilities : A Guide for Faculty and Staff Working with Students with Autism, AD/HD, Language Processing Disorders, Anxiety, and Mental Illness*, 64-65.

<sup>12</sup> American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders*, 189-190.

<sup>13</sup> Oslund, *Supporting College and University Students with Invisible Disabilities : A Guide for Faculty and Staff Working with Students with Autism, AD/HD, Language Processing Disorders, Anxiety, and Mental Illness*, 63-64.

<sup>14</sup> Tracey W. Tsang et al., "Anxiety in Young People With ADHD: Clinical and Self-Report Outcomes," *Journal of Attention Disorders* 19, no. 1 (January 1, 2015): 18–26, accessed September 27, 2023, <https://doi.org/10.1177/1087054712446830>.

and Rostain found anxiety may inhibit ADHD symptoms such as impulsivity, inattention, and hyperactivity which may explain a later diagnosis for adults.<sup>15</sup> There are multiple anxiety disorders which can be differentiated by the types of situations or objects that induce anxiety. These disorders tend to be highly comorbid.<sup>16</sup>

One of these disorders experienced by musicians is Music Performance Anxiety (MPA). As of now, there is no diagnostic criteria for the disorder by the American Psychiatric Association and no agreement of definition by musicians.<sup>17</sup> It has been defined as a sub-type of social anxiety and possibly related to issues with perfectionism.<sup>18</sup> Kenny commented on several stressors that musicians face, ranging from performing an orchestral solo to making an error while performing.<sup>19</sup> Another phenomenon indicated how musicians had most of their identity and sense of self-worth devoted to their musical identities—if they are unsuccessful performing artists, then they fail as people. It remains unknown whether *musicians* with ADHD are more susceptible to experiencing MPA.

### **Instructional Strategies**

Several researchers and authors have suggested instructional strategies for inattentiveness in a music studio environment. McAllister suggested offering a variety of activities during lessons, including written activities, movement, drawing, active

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<sup>15</sup> David Beck Schatz and Anthony L. Rostain, “ADHD With Comorbid Anxiety: A Review of the Current Literature,” *Journal of Attention Disorders* 10, no. 2 (November 1, 2006): 141–49, accessed September 27, 2023, <https://doi.org/10.1177/1087054706286698>.

<sup>16</sup> American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders*, 63–65.

<sup>17</sup> Dianna T. Kenny, “Defining Music Performance Anxiety,” in *The Psychology of Music Performance Anxiety* (Oxford: Oxford University Press, 2011): 47, accessed September 27, 2023, <https://doi.org/10.1093/acprof:oso/9780199586141.003.0027>.

<sup>18</sup> Francisca Skoogh and Henrik Frisk, “Performance Values – an Artistic Research Perspective on Music Performance Anxiety in Classical Music,” *Journal for Research in Arts and Sports Education* 3, no. 1 (April 24, 2019), accessed September 27, 2023, <https://doi.org/10.23865/jased.v3.1506>; Kenny, “Defining Music Performance Anxiety,” 60–74.

<sup>19</sup> Kenny, “Defining Music Performance Anxiety,” 51–52.

listening, reducing the length of verbal instruction, and making an outline of the lesson for the student to follow.<sup>20</sup> Melago discussed similar interventions for students with ADHD in a music studio setting, agreeing that speaking at length in a lecture format can cause students with ADHD to lose focus.<sup>21</sup> They suggested focusing on creating an experience of a concept instead of reviewing information through lectures.<sup>22</sup> Additionally, they found eliminating distractions such as decorations, aromas, and windows from the room limited mind wandering. Extant writings seem to focus on strategies for children with ADHD; it is unclear if the same strategies are successful with adult students.

### **ADHD and Hyperfocus**

Hyperfocus, or flow, has also been broadly mentioned in context with ADHD.<sup>23</sup> It is “a phenomenon that reflects one’s complete absorption in a task, to a point where a person appears to completely ignore or ‘tune out’ everything else.”<sup>24</sup> To engage in hyperfocus, (a) the task must be fun or interesting, (b) external stimuli do not appear to be consciously perceived, and (c) the task performance appears to improve. If the symptom of inattention is dependent on the type of task, then inattention would not be present if the task induced hyperfocus. In other words, it is possible for students with ADHD not to

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<sup>20</sup> Lesley Sisterhen McAllister, “Positive Teaching,” *American Music Teacher* 61, no. 4 (March 2, 2012): 18–22, <http://libraries.ou.edu/access.aspx?url=https://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=71158945&site=ehost-live>.

<sup>21</sup> Kathleen A. Melago, “Strategies for Successfully Teaching Students with ADD or ADHD in Instrumental Lessons,” *Music Educators Journal* 101, no. 2 (December 2014): 37–43, accessed September 27, 2023, <https://doi.org/10.1177/0027432114547764>.

<sup>22</sup> Melago, “Strategies for Successfully Teaching Students with ADD or ADHD in Instrumental Lessons,” 37–43.

<sup>23</sup> Brandon K. Ashinoff and Ahmad Abu-Akel, “Hyperfocus: The Forgotten Frontier of Attention,” *Psychological Research* 85, no. 1 (February 1, 2021): 1–2, accessed September 27, 2023, <https://doi.org/10.1007/s00426-019-01245-8>.

<sup>24</sup> Ashinoff and Abu-Akel, “Hyperfocus: The Forgotten Frontier of Attention,” 1.

display inattentiveness if the task is stimulating. Hyperfocus may be a solution for inattentiveness, but further investigation is required.

### **ADHD and Motor Control**

Poor motor control is another coexisting condition in children with ADHD.<sup>25</sup> Motor control is associated with how the brain and spinal cord plan and perform intricate and synchronized movements by the neuromuscular system.<sup>26</sup> Motor skills are organized into two groups: gross skills and fine skills.<sup>27</sup> Gross motor skills involve the movement of arms and legs while fine motor skills require more intricate movements with the hand, fingers, and wrists.<sup>28</sup> Children with ADHD often exhibit issues with fine motor skills and display issues with poor handwriting.<sup>29</sup> In addition, they can display clumsy behavior.<sup>30</sup> In a study by Stray et al., they found adults with ADHD exhibited similar motor control issues to that of children.<sup>31</sup> It is unclear however, if adults with ADHD shared similar fine motor control issues as children with ADHD. Additionally, it is unclear if the lack of fine motor skills can be found in adult music instrumentalists with ADHD and unclear whether these deficiencies will inhibit their progress on a musical instrument. It is important to emphasize that motor control issues coexist with ADHD. The Diagnostic

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<sup>25</sup> Maria Mokobane, Basil J. Pillay, and Anneke Meyer, "Fine Motor Deficits and Attention Deficit Hyperactivity Disorder in Primary School Children," *South African Journal of Psychiatry* 25, no. 0 (January 22, 2019): 1, <https://doi.org/10.4102/sajpsychiatry.v25i0.1232>.

<sup>26</sup> Jeff A. Potteiger. *ACSM's Introduction to Exercise Science*. (Philadelphia: Wolters Kluwer, 2018), 296.

<sup>27</sup> Mokobane, Pillay, and Meyer, "Fine Motor Deficits and Attention Deficit Hyperactivity Disorder in Primary School Children," 1.

<sup>28</sup> Mokobane, Pillay, and Meyer, "Fine Motor Deficits and Attention Deficit Hyperactivity Disorder in Primary School Children," 1.

<sup>29</sup> Mokobane, Pillay, and Meyer, "Fine Motor Deficits and Attention Deficit Hyperactivity Disorder in Primary School Children," 1.

<sup>30</sup> Mokobane, Pillay, and Meyer, "Fine Motor Deficits and Attention Deficit Hyperactivity Disorder in Primary School Children," 1.

<sup>31</sup> Liv Larsen Stray et al., "Motor Regulation Problems and Pain in Adults Diagnosed with ADHD," *Behavioral and Brain Functions* 9, no. 1 (May 3, 2013): 18, <https://doi.org/10.1186/1744-9081-9-18>.

and Statistical Manual of Mental Disorders (DSM) cites that motor control issues are not specific to ADHD but co-occur.<sup>32</sup> Considering fine motor control is a critical component of a graduate performance major, the area is worth further investigation whether there is a relationship between ADHD, fine motor skills, and a musician's ability to perform at a high level.

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<sup>32</sup> American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders*, 61.

## Learning Strategies

Graduate music performance students with ADHD can improve academic performance achievement through other forms of intervention aside from medication. Lasky et al. found over half of participants ( $n = 65$ , 55%) described their ADHD as contextual. Their symptoms (e.g., restlessness, boredom) were dependent on environment.<sup>33</sup> In a highly stimulating environment, subjects reported a decrease in ADHD related difficulties. In addition to creating a highly stimulating learning environment, goal-directed motivation has been shown to increase the completion of tasks in students with ADHD. Prevatt et al. found through ADHD coaching, average weekly task completion was greater for students who used incentives and consequences ( $M = 67.39$ ,  $SD = 36.91$ ) than those who did not ( $M = 58.09$ ,  $SD = 39.18$ ).<sup>34</sup> Parker and Boutelle investigated the experiences of coaching with college students with ADHD and/or learning disabilities, finding that participants described coaching to be an equal partnership that helped reframe their thinking.<sup>35</sup> Additionally, the same participants reported that working with a coach allowed them to develop ways to work towards their goals, while describing coaching as transformational giving them a positive outlook on their futures. Boot et al. reported similar findings related to creativity, suggesting that

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<sup>33</sup> Arielle K. Lasky et al., “ADHD in Context: Young Adults’ Reports of the Impact of Occupational Environment on the Manifestation of ADHD,” *Social Science & Medicine* 161 (July 1, 2016): 160–68, accessed September 28, 2023, <https://doi.org/10.1016/j.socscimed.2016.06.003>.

<sup>34</sup> Frances Prevatt et al., “ADHD Coaching with College Students: Exploring the Processes Involved in Motivation and Goal Completion,” *Journal of College Student Psychotherapy* 31, no. 2 (April 2017): 93–111, accessed September 28, 2023, <https://doi.org/10.1080/87568225.2016.1240597>.

<sup>35</sup> David R. Parker and Karen Boutelle, “Executive Function Coaching for College Students with Learning Disabilities and ADHD: A New Approach for Fostering Self-Determination,” *Learning Disabilities Research & Practice (Wiley-Blackwell)* 24, no. 4 (November 2009): 204–15, <https://doi.org/10.1111/j.1540-5826.2009.00294.x>.

people with ADHD produced more original ideas when competing for a monetary prize.<sup>36</sup> Given the positive effects of non-medicated intervention for adults and college students, further investigation into the effectiveness of similar interventions on graduate music performance students with ADHD seems warranted.

### **Need for the Study**

Attention Deficit Hyperactive Disorder, or ADHD, is a neurodevelopmental disorder affecting 3–7% of children and 2–5% of the adult population in the US. Of those individuals, some have gone on to study music performance at the undergraduate and graduate level. There is an abundance of research concerning college-aged students, however, there is a lack of research in graduate students with ADHD. While research findings show adults with ADHD are more susceptible to comorbid disorders such as anxiety and how MPA can negatively impact performances for musicians, it remains unknown how graduate music performance students with ADHD experience anxiety in different settings or whether they are more susceptible to experiencing MPA. While effective instructional strategies for students with ADHD are documented, most existing research focuses on children with ADHD. It is unknown whether the same strategies are beneficial for graduate performance students with the disorder. Hyperfocus is broadly mentioned in context with ADHD and may aid with inattentiveness. Further research is needed to determine if hyperfocus can be used as a mitigation strategy for graduate music performance students with ADHD in a variety of settings. Additionally, further research is needed to determine any possible negative effects of hyperfocus. Lastly, research

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<sup>36</sup> Nathalie Boot, Barbara Nevicka, and Matthijs Baas, “Creativity in ADHD: Goal-Directed Motivation and Domain Specificity,” *Journal of Attention Disorders* 24, no. 13 (November 1, 2020): 1857–66, accessed September 28, 2023, <https://doi.org/10.1177/1087054717727352>.

findings show how non-medicated interventions such as coaching, environment, and incentives can aid with ADHD symptoms. Further research is needed to investigate whether these interventions are used by graduate performance majors with ADHD and how those interventions look like.

The purpose of this study was to investigate the experiences of music performance graduate students with ADHD in studio lessons, practice sessions, rehearsals, and performances. Furthermore, I gained insight into the experiences concerning anxiety and MPA, instructional strategies, hyperfocus, motor control, and practice strategies that were encountered by music performance graduate students with ADHD. Findings from this study imply a variety of strategies that may be utilized by teachers and students, coping strategies to address anxiety, and the need for more support for students with learning differences in institutions that follow classical music traditions.

## CHAPTER 2: REVIEW OF LITERATURE

I discovered two written documents that related to ADHD and musicians. A DMA document by Hoffman discussed ADHD and professional classical musicians. Hoffman performed a qualitative study on professional classical musicians to understand how ADHD affected musicians in daily practice, rehearsal, performances, auditioning, and teaching.<sup>37</sup> She explored the main areas where ADHD can affect classical musicians in their profession, however, focusing solely on student experiences after graduation. Data collected from experiences in graduate school may assist graduate music performance students achieve consistent progress, receive accurate support from instructors, reduce possible mental health challenges, learn practice strategies, and most importantly, graduate.

Further researchers have examined learning strategies for musicians with dyslexia and ADHD.<sup>38</sup> Raviotta provided general background information on ADHD including comorbid challenges and ventures further into motor control, performance anxiety, sight reading, and memorization. Additionally, Raviotta offered resources for college students including a discloser letter template with reasonable accommodations to professors and general tips for studying.<sup>39</sup> While the information is valuable to any musician or parent with ADHD, it is generalized and lacks specificity to graduate music performance

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<sup>37</sup> Joy Hoffman, "Professional Classical Musicians with ADHD: A Qualitative Study," *ProQuest Dissertations and Theses* (D.M.A., United States -- Georgia, University of Georgia, 2020), <http://www.proquest.com/docview/2489758783/abstract/1F4327EEC84E4BC7PQ/1>.

<sup>38</sup> Sara Raviotta, "Practical Learning Strategies for Musicians with Specific Learning Disorder (Dyslexia) and/or Attention Deficit Hyperactivity Disorder (ADHD)," Thesis or Dissertation, UNT Digital Library (University of North Texas, May 2017), <https://digital.library.unt.edu/ark:/67531/metadc984211/>.

<sup>39</sup> Sara Raviotta, "Practical Learning Strategies for Musicians with Specific Learning Disorder (Dyslexia) and/or Attention Deficit Hyperactivity Disorder (ADHD)," 211-212.

students. In addition, much of Raviotta's information is theoretical and requires further research to explore the extent of how ADHD affects musicians.

### **ADHD in College-Aged Students**

There are a few sources that discussed support for ADHD in college students. In the text *College Success for Students with Disabilities*, Ingersoll discussed a variety of disabilities affecting college students including physical and medical disabilities, dyslexia, ADHD, and more.<sup>40</sup> In the chapter discussing ADHD, Ingersoll provided basic information on the disorder along with how ADHD affects undergraduate students. She examined how ADHD can cause issues with time management, motivation, and emotional dysregulation. Additionally, Ingersoll provided common accommodations including utilizing peer notes, recording lectures, and extended test time. The information offered in the chapter is enormously valuable, however the scope is on college freshmen and does not include graduate student populations. Further, recommended strategies primarily focused on basic courses and cannot suggest effectiveness for music learning in the practice room, studio lessons, or rehearsals. Finally, the scope of the book is to provide general information on how ADHD affected college students. Thus, discussions on specific topics such as hyperfocus, comorbid disorders such as anxiety, and motor control issues are not provided.

Oslund similarly explored a variety of disabilities affecting college students. In the discussion about ADHD, Oslund provided diagnostic criteria and general background information on ADHD and considered some of the social stigmas surrounding ADHD

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<sup>40</sup> Irene Ingersoll, *College Success for Students with Disabilities: A Guide to Finding and Using Resources, with Real-world Stories*. (Jefferson, NC: McFarland & Company, Inc., Publishers, 2016).

along with physiological differences in the brains of those with and without ADHD.<sup>41</sup> Furthermore, Oslund supplied information on comorbid disorders such as developmental coordination disorder, oppositional defiant disorder, anxiety disorders, learning disorders, mood disorders, and alcohol and drug dependency. Finally, she offered methods of supporting a person with ADHD. Selected examples included providing external structure in the forms of a list of duties or assignments, clear goals, and a clear set of guidelines. The chapter provided information that will help readers better sympathize with those living with ADHD. It also yielded important discussions on comorbid disorders such as motor control issues and anxiety. However, there is no discourse on motor control issues affecting musicians, or anxiety increasing the possibility of musician performance anxiety. Like Ingersoll, the scope of the book is to provide a general background of ADHD and college students and provides no discussion on hyperfocus as well as how ADHD might affect a graduate student or music learning.

Weyandt and DuPaul provided a much more detailed discussion on ADHD that highlighted general information along with discussions on ADHD in adolescents, functioning, assessment of ADHD, a variety of interventions, medication, and future directions.<sup>42</sup> In the section on academic functioning, they revealed that students with ADHD needed different study strategies from neurotypicals. Additionally, the authors addressed comorbid disorders such as depression and anxiety along with a chapter on interventions, that included cognitive behavioral therapy (CBT) as a possible

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<sup>41</sup> Oslund, *Supporting College and University Students with Invisible Disabilities: A Guide for Faculty and Staff Working with Students with Autism, AD/HD, Language Processing Disorders, Anxiety, and Mental Illness*.

<sup>42</sup> Weyandt and DuPaul, *College Students with ADHD: Current Issues and Future Directions*.

psychosocial intervention. Weyandt and Dupaul's educational interventions involved study and organizational skills as well as lecture and reading comprehension skills. Furthermore, they shared several available accommodations at the collegiate level such as extended time on exams. Like similar extant writings, the scope of the book focused on the general population of college students with ADHD and did not include a discussion on how ADHD affects music students. Moreover, the authors primarily addressed issues with undergraduate students with ADHD. One area worthy of interest is their description of educational interventions. Weyandt and DuPaul described educational interventions for ADHD as student training to gain skills aiding in the specific content-area. Their description furthers the argument for educational interventions in the music discipline for graduate music students and for graduate music performance students with ADHD.

### **ADHD and Anxiety**

Sources concerning the possibility of individuals with ADHD being more prone to MPA were severely lacking, however, parallel sources regarding the relationship between anxiety and ADHD, and the relationship between anxiety and MPA were discovered. Schatz and Rostain uncovered literature that proposed anxiety in people with ADHD suppressed impulsivity but can also further impair working memory.<sup>43</sup> Additionally, they found that anxiety in people with ADHD manifested differently than in people without the disorder and is associated with social and cognitive dysfunction. In other words, the basis of anxiety of individuals with ADHD involved the stress of social acceptance and academic performance. Additionally, the authors explored recently

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<sup>43</sup> David Beck Schatz and Anthony L. Rostain, "ADHD With Comorbid Anxiety: A Review of the Current Literature," *Journal of Attention Disorders* 10, no. 2 (November 1, 2006): 143, <https://doi.org/10.1177/1087054706286698>.

examined ADHD subtypes (e.g., sluggish cognitive tempo (SCT), obsessive compulsive disorder, other pathogenic models) and how they contribute to increased anxiety. The article presented a multifaceted view on anxiety in people with ADHD and demonstrates how the disorder should be studied in individuals independently. Furthermore, the authors suggested the need for additional research on the relationship between anxiety and ADHD in a variety of situations including musicians with ADHD and performance.

Other researchers have explored a connection between generalized anxiety disorder (GAD) and music performance anxiety (MPA). Weidemann et al. found GAD to be independent from social anxiety disorder (SAD), and a mediator between MPA, and other anxiety types.<sup>44</sup> The authors defined MPA as a form of emotional behavior and dependent on a performer's cultural group. Additionally, they revealed as the severity of MPA increases, performance quality decreases. Through their statistical analysis using data collected from university students, they found participants with "pathological anxiety" had more severe symptoms of MPA. However, Weidemann et al. conceded that the sample size of the individuals with pathological anxiety was too small to draw any generalized conclusions.<sup>45</sup> In another study by Wiedmann et al., the authors aimed to examine the relationship between parenting style and MPA.<sup>46</sup> They discovered a moderate link between parenting style and MPA and found MPA to be strongly related to

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<sup>44</sup> Anna Wiedemann et al., "How Does Music Performance Anxiety Relate to Other Anxiety Disorders?," *Psychology of Music* 50, no. 1 (January 1, 2022): 204–17, <https://doi.org/10.1177/0305735620988600>.

<sup>45</sup> Anna Wiedemann et al., "How Does Music Performance Anxiety Relate to Other Anxiety Disorders?," 204–17.

<sup>46</sup> Anna Wiedemann et al., "The Role of Retrospectively Perceived Parenting Style and Adult Attachment Behaviour in Music Performance Anxiety," *Psychology of Music* 48, no. 5 (September 1, 2020): 707–23, <https://doi.org/10.1177/0305735618817877>.

GAD. Despite the link between anxiety and ADHD, extant research does not explicitly address any possible connection with performance anxiety in musicians.

### **Instructional Strategies**

Two articles by McAllister and Melago were encountered that provided numerous instructional strategies for children with ADHD.<sup>47</sup> McAllister suggested a mindset for readers to adopt, using the acronym “CARE” (concern, authenticity, respect, and empathy) to better explain positive teaching. Together, these attributes contribute to a much-needed positive teaching experience for children with ADHD. Next, she revealed the four main symptoms of ADHD and teaching strategies to address them. Examples included allowing hyperactive students to stand and move around, providing practice checklists for inattentive students, and providing guidelines for behavior and for impulsive students. Although helpful, the article is limited to instructional strategies for a younger population with ADHD. When teaching a younger population, the instructor becomes the primary guide through the learning process. Whereas, at the graduate level, it is more common for students to take more ownership of their learning process and work together with the studio instructor to create goals and a plan of study. Therefore, instructional strategies limited to a younger population do not fully reflect the educational setting of a graduate student and there are no implications that these same strategies will fully benefit a graduate music performance student.

Melago supplied general ADHD information along with an analysis on the laws protecting children and adults with disabilities. Next, she offered strategies suggesting teachers eliminate audio, visual, and aromatic distractions, adjusting the length of

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<sup>47</sup> Melago, “Strategies for Successfully Teaching Students with ADD or ADHD in Instrumental Lessons,” 37–43; McAllister, “Positive Teaching,” 18–22.

lessons, the pros and cons of structure, and sharing the structure of lessons beforehand. Finally, she discussed maintaining a swift pace while reducing verbal instruction, recording lessons, and formulating practice guidelines. Similar to the suggestions by McAllister, Melago suggested instructional strategies for a younger population of students. Additionally, the article is limited to the studio lesson setting and lacks instructional strategies for chamber and large ensemble rehearsals. Ensembles differ from a studio setting in that they involve different genres of music, working with other students, sharing a music stand, sitting in a chair, and the responsibility of the instructor to cater to the instructional needs of a variety of students. Therefore, it is undetermined the instructional strategies in a private lesson setting can be applied to chamber and large ensemble rehearsals.

### **ADHD and Hyperfocus**

One article was discovered that attempted to address hyperfocus in individuals with ADHD. Ashinoff and Abu-Akel surveyed extant research on hyperfocus, including challenges in researching the phenomenon and how hyperfocus affects neurodivergent populations (e.g., people with ADHD).<sup>48</sup> When individuals engage in hyperfocus, external stimuli become greatly diminished or completely ignored. The authors then explained that hyperfocus can occur if the task is fun or interesting with a possibility for task performance to improve, however, not enough evidence exists to fully support this implication. Additionally, they uncovered only one study that clearly sought to measure hyperfocus in individuals with ADHD and neurotypicals. The scope of the study is narrow due to the novelty of hyperfocus and the lack of research. Additionally, Ashinoff

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<sup>48</sup> Ashinoff and Abu-Akel, "Hyperfocus: The Forgotten Frontier of Attention," 1-19.

and Abu-Akel were unable to find any studies that explored hyperfocus in any learning environment, including music learning at the collegiate level, or the graduate level. If there is a possibility that hyperfocus is dependent on context and can eliminate external stimuli, then hyperfocus may be able to assist individuals with ADHD. In theory, one approach to induce hyperfocus in a graduate music performance student may include selecting repertoire of extreme interest. This can include selecting repertoire from the student's favorite genre such as baroque or string quartet amongst others. However, these approaches are theoretical and based on limited research. Thus, more research is needed to provide greater implications on hyperfocus and its effect on graduate music performance students with ADHD.

### **ADHD and Motor Control**

Due to the novelty on ADHD and motor control, only one article was ascertained. Stray et al. explored whether adults with ADHD demonstrated motor control issues.<sup>49</sup> They compared two groups involving adults with and without ADHD, finding that the group with ADHD had more severe problems than the group without ADHD. The study demonstrated that it is possible for adults with ADHD to have issues with motor control, however, it was limited to the general adult population with ADHD. Moreover, existential data cannot provide connections between the movements in the Motor Function Neurological Assessment (MFNU) test to the finer movements of an instrumentalist. Another limitation was the study only concluded that adults with ADHD have similar motor control issues to children with ADHD, thus, no implications can be made whether motor control issues in adult musicians with ADHD impairs performance.

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<sup>49</sup> Stray et al., "Motor Regulation Problems and Pain in Adults Diagnosed with ADHD," 1-10.

Furthermore, it is unclear the extent of the severity of motor control issues. Considering the advanced level of competitiveness and musicianship required to be successful post graduate school, further research is needed on ADHD, motor control, and graduate music performance students.

### **Learning Strategies**

Two articles were encountered that explored environment and ADHD coaching as possible learning strategies for students with ADHD. Lasky et al. performed interviews with young adults diagnosed with ADHD to explore whether occupational or educational contexts affected ADHD issues. They discovered that ADHD experiences are dependent on the environment and if the environment was challenging, novel, fast-paced, or interesting, they were less likely to exhibit symptoms.<sup>50</sup> Lasky et al. utilized a general population with ADHD and did not explore young adult musicians or graduate music performance majors. Information on the types of environments that prove to be the most beneficial to graduate music performance majors with ADHD can be used by faculty and students to ensure consistent progress on their instruments. Additionally, the information can be used to explore the best practice environments, repertoire, and other areas of study that will be the most stimulating.

Prevatt et al. examined the various processes associated with ADHD coaching in undergraduate and graduate students.<sup>51</sup> They discovered a significant benefit for students that utilized incentives and consequences for weekly goal completion. The limitation of

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<sup>50</sup> A. K. Lasky et al., “ADHD in Context: Young Adults’ Reports of the Impact of Occupational Environment on the Manifestation of ADHD,” *Social Science & Medicine* 161 (July 1, 2016): 160–68, <https://doi.org/10.1016/j.socscimed.2016.06.003>.

<sup>51</sup> F. Prevatt et al., “ADHD Coaching with College Students: Exploring the Processes Involved in Motivation and Goal Completion,” *Journal of College Student Psychotherapy* 31, no. 2 (April 2017): 93–111, <https://doi.org/10.1080/87568225.2016.1240597>.

this study was the lack of a content-specific investigation on incentives and consequences. Instead, the scope of the study was on the general college student population and no suggestions can be made whether the same strategies are effective in studio lessons. Further research is needed to test the effectiveness of goal-directed motivation and graduate music performance students with ADHD. The information can be utilized by this student population to better structure their preparation for recitals, auditions, and other performances.

## **CHAPTER 3: METHODOLOGY**

The purpose of the study was to investigate experiences of music performance graduate students with ADHD. The following research questions were addressed:

- 1) What are the practice and teaching strategies currently being utilized to assist music performance graduate students with ADHD?
  - a. Do music performance graduate students with ADHD utilize hyperfocus?
- 2) Are music performance graduate students with ADHD more susceptible to music performance anxiety?
- 3) Do music performance graduate students with ADHD experience motor control issues while performing their instruments?

The data collected from these experiences helped identify the current conditions of graduate music performance students with ADHD in studio lessons, practice sessions, rehearsals, and performances. Additionally, this information can assist students and instructors enhance their understanding of ADHD in musicians and improve their approaches to music instruction, learning and performance.

### **Participants**

The participants of the study were current and former graduate music performance students who were diagnosed with ADHD. To acquire accurate representative data based on experiences in graduate school, all participants completed at

least one semester of study in either a master's or doctoral program. In addition, former students who had graduated with a graduate degree within two years of their studies were invited to participate. Participation was open to only instrumentalists to accumulate sufficient data concerning motor control.

## **Procedures**

This study employed a collective case study research methodology through a phenomenological lens which allowed the researcher to form a detailed presentation of multiple cases as they related to the research questions.<sup>52</sup> The phenomenological method outlined in Froehlich & Campbell, centers on the researcher drawing data from lived experiences and seeking the reasoning.<sup>53</sup> “Its degree of scholarship rests in the rigor of carefully probing and analyzing diverse viewpoints and examining different ‘understandings’ of the ‘life world’.”<sup>54</sup> Given the varying ranges of ADHD symptoms in individuals, comorbid diseases associated with the disorder, and the variety of instructional methods employed by studio teachers, I believed a collective case study allowed the best approach to describe the diverse experiences from participants. Once permission was secured to conduct the study by the Institutional Review Board (see Appendix A) at the University of Oklahoma, I began the recruitment process.

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<sup>52</sup> Frierson-Campbell, Froehlich, and Froehlich. *Inquiry in Music Education : Concepts and Methods for the Beginning Researcher*, 154.

<sup>53</sup> Carol Frierson-Campbell, Hildegard C. Froehlich, and Hildegard Froehlich. *Inquiry in Music Education : Concepts and Methods for the Beginning Researcher*. (London: Taylor & Francis Group, 2012), 71.

<sup>54</sup> Frierson-Campbell, Froehlich, and Froehlich. *Inquiry in Music Education : Concepts and Methods for the Beginning Researcher*, 153-154.

## **Recruitment**

I recruited participants from universities in Oklahoma and surrounding states. With permission from a faculty member, an email including criteria for participants, a consent form, and a description of the study was forwarded to their graduate music performance students. I used a mixture of snowball and theoretical sampling outlined by Froehlich and Campbell to find additional participants that met the research criteria,<sup>55</sup> aiming to recruit a total of 2–4 participants for the study. Once potential participants were identified, a second email was sent to formally invite them to participate in the study. I recruited two participants from Oklahoma and surrounding states.

## **Data Collection**

The interview process began after receiving informed consent from all participants. The interviews were designed to last 45 minutes to 1 hour, were scheduled individually upon the availability of the participants, and took place through the *Zoom* video conferencing platform. To ensure validity of the data, a location free from distractions was determined with the help of the interviewee to aid in focus and concentration, while remaining confidential.

The interview questions were designed to investigate the experiences of music performance graduate students with ADHD in studio lessons, practice sessions, rehearsals, and performance settings—more specifically, I focused on their experiences concerning anxiety and MPA, instructional strategies, hyperfocus, motor control and

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<sup>55</sup> Frierson-Campbell, Froehlich, and Froehlich. *Inquiry in Music Education : Concepts and Methods for the Beginning Researcher*, 166.

practice strategies.<sup>56</sup> These settings presented obstacles for graduate music performance majors with ADHD.<sup>57</sup> Sample interview questions were developed using the method outlined by Bevan<sup>58</sup>—a structural approach for “describing and thematizing” experiences.<sup>59</sup> In addition, Bevan explained that this method helps the novice phenomenological researcher to demonstrate clarity and credibility. Employing this method, questions were constructed to contextualize each participants’ experiences with ADHD, apprehend the phenomenon of ADHD in studio lessons, practice sessions, rehearsals, and performances, and clarify the phenomenon.<sup>60</sup> The following questions were utilized in the study:

1. Tell me about how you arrived at your ADHD diagnosis.
2. Tell me about a typical day at school.
3. Describe to me some helpful teaching strategies your teacher has used in your lessons.
  - a. Describe any teaching strategies that you wish to see more of in your lessons to help with ADHD related issues.

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<sup>56</sup> Oslund, *Supporting College and University Students with Invisible Disabilities : A Guide for Faculty and Staff Working with Students with Autism, AD/HD, Language Processing Disorders, Anxiety, and Mental Illness*, 56-67; Weyandt and DuPaul, *College Students with ADHD: Current Issues and Future Directions*, 10-14; Kenny, “Defining Music Performance Anxiety”; Melago, “Strategies for Successfully Teaching Students with ADD or ADHD in Instrumental Lessons,” 37–43; Ashinoff and Abu-Akel, “Hyperfocuss: The Forgotten Frontier of Attention,” 1; Parker and Boutelle, “Executive Function Coaching for College Students with Learning Disabilities and ADHD: A New Approach for Fostering Self-Determination,” 204–15.

<sup>57</sup> Joy Hoffman, “Professional Classical Musicians with ADHD: A Qualitative Study,” *ProQuest Dissertations and Theses* (D.M.A., United States -- Georgia, University of Georgia, 2020), accessed September 28, 2023, <http://www.proquest.com/docview/2489758783/abstract/1F4327EEC84E4BC7PQ/1>.

<sup>58</sup> Mark T. Bevan, “A Method of Phenomenological Interviewing,” *Qualitative Health Research* 24, no. 1 (January 1, 2014): 136–44, <https://doi.org/10.1177/1049732313519710>.

<sup>59</sup> Mark T. Bevan, “A Method of Phenomenological Interviewing,” 142-143.

<sup>60</sup> Mark T. Bevan, “A Method of Phenomenological Interviewing,” 139.

4. Describe to me some helpful practice strategies that have helped you in your practice sessions.
  - a. What are some motivational strategies that have helped you?
  - b. What are your experiences with hyperfocus in your practice sessions?
5. Tell me about a challenging day playing your instrument.
  - a. Did you feel a temporary loss of motor control?
6. Describe to me some helpful strategies used by your conductor or chamber coach that have helped.
  - a. Describe some strategies you wish to see utilized by your conductor or chamber coach.
7. Have you ever experienced performance anxiety as a graduate student? If so, tell me about one of those experiences.
8. Have you experienced any type of anxiety in your studio lessons, rehearsals, or practice sessions? If so, tell me about those experiences?
9. Have you experienced a situation as graduate performance student where you believed ADHD has helped you? If so, describe your experience.
10. Is there anything else about your experience as a music performance graduate student with ADHD that you wish to tell me?

All video and audio recordings and transcriptions were stored on an encrypted USB drive for confidentiality purposes. When storing data, a pseudonym was used in place of participants' given names. Additionally, no demographics and actual location were collected. Finally, redactions were implemented to avoid identification based on responses. Participants were given the opportunity to read through the redacted interview

transcript and research results to ensure their comfort with the findings and concurred their responses were not reidentifying.

### **Data Analysis**

I employed the data analysis spiral, as outlined by Creswell, to find common themes from all participant data.<sup>61</sup> In the first step of this method, I organized all the data into electronic folders. Each folder was classified by the participants pseudonym and was included on the encrypted data. To ensure confidentiality and organization, all electronic copies of transcriptions were typed and saved into the corresponding folders while hardcopies and notes were then stored in a safe and secure location. In the second phase of data analysis spiral, I read through all notes and transcriptions multiple times tracking initial interpretations of the data with notes and memos.<sup>62</sup> Following my initial readings, I coded (or categorized) the data, employing a variety of analytical methods outlined by Miles et al. and Creswell.<sup>63</sup> After first-round coding was complete, I combined codes into themes reflective of my research questions as I “ma[de] sense of the data.”<sup>64</sup> In the final step of the data analysis spiral was I presented the data in text and figures. After all data were analyzed, transcripts from both interviews were sent to participants for approval to use in the study.

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<sup>61</sup> John W. Creswell, *Qualitative Inquiry & Research Design: Choosing Among Five Approaches* (Los Angeles, CA: SAGE Publications, 2013), 182-188.

<sup>62</sup> Creswell, *Qualitative Inquiry & Research Design: Choosing Among Five Approaches*, 182-184.

<sup>63</sup> Matthew B. Miles, Michael Huberman, and Johnny Saldaña, *Qualitative Data Analysis: A Methods Sourcebook* (SAGE Publications, 2019), 62-75; Creswell, *Qualitative Inquiry & Research Design: Choosing Among Five Approaches*, 184-188.

<sup>64</sup> Creswell, *Qualitative Inquiry & Research Design: Choosing Among Five Approaches*, 187.

## **CHAPTER 4: FINDINGS**

Findings are organized and presented in two stages: First, I provide a narrative description of each participant, derived from their individual responses to interview questions. Second, I present a summary of all data through three main themes reflective of each research question topic.

### **Participant Narratives**

#### **Miguel**

Miguel attended grad school two years ago in pursuit of a performance degree. By then, he had already begun treatment for ADHD. He began psychotherapy while in undergrad to treat his depression and after a few sessions his psychotherapist said he exhibited signs of ADHD, and it was probably the underlying issue to his depression. He had always done well in school, but it was always a struggle. He would often get stuck rereading passages over and over and it was challenging to find the motivation to practice. At home he could not find the willpower to complete his homework, practice, or do laundry. In his head he would think how much he really needed to complete these tasks, but nothing would come of it. Eventually, negativity began to build up around the tasks and created mental blocks making it even more demanding to complete them.

Before he began grad school, Miguel had his psychotherapist's voice in his head reminding him about the possibility of having ADHD. He finally followed through with his recommendation and got his official ADHD diagnosis. He was prescribed stimulants, tried them out, and he saw a positive effect. Miguel no longer had issues with reading comprehension and the medication removed all the mental blocks that prevented him from completing tasks. Most importantly he saw an improvement on his mental health

and depression became an obstacle of the past. His journey to his ADHD diagnosis revealed to him how important it was to receive the right treatment. Treating ADHD truly improved every aspect of his life.

*Oh, well, I...I don't have that, you know. I mean, I don't have any, you know, reason to be treated. Look at how well I've done. But then, you know, really, once I once it was treated, it really changed the way that I was able to do work. And, you know, [I] could do it with a lot more ease, and so that's kind of how I arrived at finding that out somewhat late to the game... – Miguel*

Treating his ADHD made grad school a much more positive experience. Miguel followed his interest in historical performance and began studies in that discipline. He would commute to the city to attend class in the late mornings until the late afternoon. During opera season he would hang out in the city and became a regular at a nearby bar and chatted with other regulars until evening opera rehearsals. Outside of class he spent much of his time reading and writing on his interests, C.P. Bach and Frederick's court in the North German esthetic. Miguel also practiced much more at harpsichord.

*So, I can certainly see, and I don't know if it's just you know, the difference between graduate studies and undergraduate studies, but I certainly saw a big shift in kind of my daily habits once my ADHD was diagnosed and treated, for sure. – Miguel*

Practice sessions became much more productive when he incorporated a few strategies. Miguel would base his goals on what he envisioned the final product to be.

Listening to recordings of Freiburg Baroque Orchestra and other artists helped with the process by giving him ideas. Sometimes in his sessions he would get caught in whirlwind perfectionism and anxiety, but visualizing a final product with flaws and reminding himself daily that he is doing the best that he can helped him get through these tough moments.

*And you can say that you know, and then if you can picture the performance, you know, and if you can picture yourself having mistakes, that's even better, you know, don't picture your perfect performance, but picture yourself having some mistakes, and you're getting through the piece, and then the audience claps. It's like, oh, okay, well, they're not throwing tomatoes, so that's good. – Miguel*

In grad school he was not often participating in an ensemble, but when he did, he found it helpful when the conductor would bring awareness to what was important. He found that this strategy would bring novelty and musical expression to parts that are generally overlooked. For one week in grad school, he remembered when his conducting professor had everyone in the ensemble sitting in different sections. Trombonists were sitting next to the first violins and the clarinetist sat next to the celli. Miguel found the experience fun, but it also helped bring awareness to other sections of the ensemble. The same professor would also display the score on a projector that allowed everyone to see the bigger picture.

There were moments of anxiety when Miguel felt he hadn't prepared enough for his lessons, but there were helpful moments. His teacher taught him the skill of reducing the continuo part to basic chords that made the music manageable. His teacher also

encouraged Miguel to embody Baroque music, especially with dances. Embodiment became a way to understand and perform a variety of Baroque dances.

*You know, is it like a this thing you know, where you know your arms going up and like a ballet dancer, or is it like a curtsy thing, where you're going forward, or, you know, what kind of gesture Are you really? What courtly affect, you know, are you going for? And in triple meter, you know, we always think of one as being the heavy, strong, beat down, 1 – 2 – 3 - 1, but really in Baroque dance, one was always an up movement. – Miguel*

Miguel's experiences in grad school were much more positive compared to undergrad before his ADHD diagnosis. He was much more productive and allowed himself to pursue his interests in historical performance and found ways to cope through his ADHD symptoms. However, he strongly feels that academic success should not be the end goal when treating ADHD.

*And so I just generally find that it's, it's interesting how the ADHD affects the brain, you know, in so many different ways, and your own psychology in so many different ways that that, you know, I think that if, if the ADHD is treated, one becomes just so much healthier psychologically in all aspects... – Miguel*

### **Vincent**

Vincent attended grad school two years ago and had previously been diagnosed with ADHD as a child. He wasn't too sure what prompted his parents to seek out a diagnosis, but he thought he may have been due to low academic performance reported

by his teachers. His parents then took him to see a neuropsychologist where Vincent was then diagnosed with ADHD. Ever since then, he returned to the doctor for treatment and eventually was prescribed medication.

*A long time ago. When I was in like middle school, my parents, took me to a neuropsychologist, or something like that, and he diagnosed me with it, and I kept going back to him for a while, and then eventually they put me on, like, medication. – Vincent*

Vincent began grad school during COVID which included much of his courses taking place on *Zoom*. When classes were held in-person, they social distanced and wore face masks. He was still able to participate in ensembles and performances and receive coachings when he participated in the graduate string quartet. Even though he was able to continue studies, he felt that he was missing the personal connection with audiences during performances. Vincent also struggled to keep himself motivated.

*I definitely prefer in-person. I feel like the value that experience is more motivating to me. Plus, I think it becomes ingrained in you at some point to like hit the practice room before your lesson, you know, and it becomes habitual. So, breaking that up with Zoom calls means that I had to actively push myself to start practicing, like, 32 minutes to an hour before the lesson to make sure I was warmed up and ready to go. And honestly, being remote is never motivating to do any work for me, because it's way too distracting with everything. I do relax at home, you know? – Vincent*

Vincent still found impactful moments in his studio lessons. In moments of self-doubt, his teacher would use positive reinforcement to boost his self-esteem and when he was feeling confident his teacher would use constructive criticism to help motivate him. Vincent would also notice when his ADHD symptoms would create challenges in lessons. He would sometimes experience moments of anxiety when he feared he might forget something important to practice. In general, he always had “trepidation” when it comes to memory. He also felt that it was difficult to focus when his teacher would demonstrate on her instrument.

*So like, one thing that I think I've noticed over the years of having ADHD and being in private lessons is it's always easier for me to play in a lesson than to listen. Which obviously the main point of the lesson is to listen. But when the teacher is playing, I find it harder. I find it hard sometimes to focus on what specifically she's doing or what she's wanting me to watch about what she's doing. – Vincent*

Vincent’s ADHD symptoms also caused struggles in the practice room. He would sometimes battle issues on focus which included trying his best to ignore notifications on his phone and the temptation to swipe out of the metronome app. He did find ways to help with motivation that included breaking up monotonous tasks like scales and incorporating fun repertoire between them. Vincent also felt that he was more likely to practice if his instrument case was open and his instrument was set up. Other obstacles involved hyper-focusing on repertoire for too long which led to repeated failure and frustration.

*So, like, I'll either get hyper focused on something like this used to happen to me with Bach, because, you know, Bach's very like, well, the way it's written is very structured, and it's very like, layered and stuff like that. And I really want to see it to my self-satisfaction. But the problem with that is it leads to some serious frustration and anger with like, repeated failure or repeated stuff like that. So it can actually go to an unhealthy level, and it's actually led to some, you know, muscle tension and soreness, which I was always afraid would lead to tendonitis and stuff. – Vincent*

Vincent experienced some of the best moments in ensembles because being around other musicians made him feel jovial. He would often joke around to ease the tension when he and his colleagues were challenged with difficult repertoire. Sometimes though it would get him into trouble with conductors; he developed anxiety having to remember to behave. Occasionally, Vincent would also get fidgety especially with an uncomfortable chair. He did wish that his conductors would spend more rehearsal time on the “boring stuff.”

*I mean, obviously they don't see that's the hard part, because the hard stuff, the fancy stuff, is usually what requires the most rehearsing, and that's where all the artistic expression comes from. But I feel like they could still gain artistic value, musicological value from rehearsing the boring ostinato, long tone stuff just to reinforce the foundations of the sound and the inner workings. – Vincent*

Out of all his experiences as a graduate student, Vincent felt that the class work created the most challenges for him due to procrastination and having issues focusing in class. He did however find that musicology kept his attention because of the narrative qualities. Vincent also felt that research projects allowed him to delve into Ludo Musicology, a topic of extreme interest.

*Yeah, I really dove into that because I have a special interest in Ludo Musicology, the musicological study of video games, music. And so I play a lot of video games. So what I did was I played some more video games, but I paid more attention to the music, and then did like, research, like that...And then get...yeah, got hyper [focused], like, listening to the soundtracks on YouTube and taking, like, meticulous notes of like, when each theme was being used in the game and if it influenced gameplay at all, stuff like that. – Vincent*

Despite the struggles, Vincent did find some positives having ADHD. He was able to juggle multiple responsibilities with his job as a Research and Development Associate, schoolwork, and gigs.

*I mean, I think it's part of the hyper focus. When I'm at a gig, I'm fully focused on the gig and when I'm at work, I'm fully I'm consumed by work. When I'm at school, I'm fully consumed by school, etc, etc. I think that's, I think that's an aspect of my hyper focus. And beyond that, yeah, I think that's the main reason, I think that benefited me. – Vincent*

### **Theme 1: Practice & Teaching Strategies**

Participants highlighted several meaningful strategies to assist in combatting symptoms of ADHD in the music performance setting (Research Question 1). Table 1 includes the eight strategies that emerged, along with direct quotes, to highlight the varying strategies they utilized.

**Table 1:** Strategies from the responses of participants with ADHD in studio lessons, practice sessions, rehearsals, and performances.

| Participant(s)   | Setting                             | Strategy       | Direct Quote                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------|-------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Miguel           | Studio Lessons                      | Simplification | “You can generally reduce it down to a continuo part. And so by taking all of the embellishment filigree and reducing it down to just chords, makes it, you know, manageable.” – Miguel                                                                                                                                                                                                                                                                                                                                     |
| Vincent          | Practice Sessions                   | Fragmentation  | “A lot of the times I'll also break up anything monotonous, like skills, arpeggios, excerpts, or anything like that, with fun stuff to play that's satisfying...” – Vincent                                                                                                                                                                                                                                                                                                                                                 |
| Vincent          | Studio Lessons                      | Empathy        | “I think obviously positive and negative reinforcement are valuable teaching skills that I recognize. So like positive when you're feeling down, or when she (professor) when she notices that you're, like feeling stressed or anxious, or anything like positive reinforcement and then more constructive criticism, which I guess would fall under negative reinforcement when she (professor) could see that I'm giving my full effort and that I can and I just want to find out ways to improve, you know?” – Vincent |
| Miguel & Vincent | Studio Lessons, Ensemble Rehearsals | Movement       | <p>“And so my professor always, you know, would say, like you have to act out the Baroque dance, and kind of what gesture you want. You know, is it like a this thing you know, where you know your arms going up and like a ballet dancer...” – Miguel</p> <p>“Now I will say, when I'm standing and playing, that's a different story. I'm always shifting my weight, like leaning backward and forward, and I'm always, I'm never static when I'm standing.” – Vincent</p>                                               |

| Participant(s)   | Setting                                                | Strategy               | Direct Quote                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------|--------------------------------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Miguel & Vincent | Studio Lessons, Ensemble Rehearsals                    | Movement               | <p>“My professor would always say you have to act out the Baroque dance, and what gesture you want. Is it like a this thing where your arms going up and like a ballet dancer...” – Miguel</p> <p>“Now I will say, when I'm standing and playing, that's a different story. I'm always shifting my weight, leaning backward and forward. I'm never static when I'm standing.” – Vincent</p>                                                                                                                                  |
| Vincent          | Ensemble Rehearsals                                    | Comradery              | <p>“...I feel like I can focus best when there are other people's expectations on me in the moment.” – Vincent</p>                                                                                                                                                                                                                                                                                                                                                                                                           |
| Miguel & Vincent | Practice Sessions                                      | Environment            | <p>“When I was at home, I did find that during the day, at least, I was much more productive as far as reading and writing, and then once I had officially switched to a harpsichord degree as well as conducting, a lot more practice as well.” – Miguel</p> <p>“I definitely prefer in-person. I feel like the value that experience is more motivating to me. Plus, I think it becomes ingrained in you at some point to like hit the practice room before your lesson, you know, and it becomes habitual.” – Vincent</p> |
| Miguel & Vincent | Studio Lessons, Practice Sessions, Ensemble Rehearsals | Interest               | <p>“I find it more often I practice more continuo stuff than solo stuff, and I find that I can get into it a bit more.” – Miguel</p> <p>“Anything to do with research actually, really took me, like, I'm not sure if it was because I was able to pursue research, I was interested in...” – Vincent</p>                                                                                                                                                                                                                    |
| Miguel           | Practice Sessions                                      | Realistic Expectations | <p>“And you can say that you know, and then if you can picture the performance, and if you can picture yourself having mistakes, that's even better...don't picture your perfect performance, but picture yourself having some mistakes, and you're getting through the piece, and then the audience claps.” – Miguel</p>                                                                                                                                                                                                    |

The participants found the following eight strategies helpful as graduate music performance students in practice sessions, studio lessons, and ensembles to help cope through their ADHD symptoms: simplification, fragmentation, empathy, movement, comradery, environment, interest, and realistic expectations.

Simplification involved the process of simplifying a passage to basic chords that made the music less daunting for Miguel. Vincent employed fragmentation in his practice sessions that involved fragmenting larger technical exercises, such as scales and arpeggios, into smaller sections and incorporating fun repertoire between those sections. Vincent found his teacher's utilization of empathy helped strengthen his perseverance. His teacher would alternate between positive reinforcement and constructive criticism in his studio lessons. The type of feedback was dependent on Vincent's mood. When he was feeling down, his teacher utilized positive reinforcement; when he was feeling confident, she used constructive criticism. Both participants reported movement to be important in their learning process in studio lessons and practice sessions. Miguel talked about how his teacher would encourage him to act out baroque dances while Vincent stated that playing his instrument while standing allowed him to focus. Comradery was an essential strategy for Vincent that allowed him to focus better in ensembles, revealing a positive effect when other people's expectations were placed on him. Finding the right environment free from distractions was vital for both participants. Miguel stated that he was more productive at home, while Vincent stated that he was more productive at school. Additionally, Vincent noted that sometimes his phone drew his attention in the practice room and he would be tempted to check notifications. Interest also played an essential role for both participants allowing an increase in motivation to practice or work.

Miguel was more productive when he switched his degree to conducting and harpsichord performance and he was able to hyperfocus on continuo repertoire. Vincent stated that he had a strong interest in ludomusicology, the study of music in video games and was his topic of choice when tasked with term papers. Finally, Miguel stated that setting realistic expectations assisted with his motivation and found that imagining a flawed performance motivated him to practice for his recital.

Positive and negative experiences with hyperfocus surfaced from participant responses (Research Question 1a). Table 2 includes the setting where hyperfocus occurred, a positive or negative classification of the experience, and direct quotes.

**Table 2:** Participants’ positive and negative experiences with hyperfocus in multiple settings.

| Participant | Setting                                | Positive/Negative | Direct Quote                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------|----------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Miguel      | Practice Sessions                      | Positive          | “I think that the hyper focus comes in more when I'm not trying to do a grueling practice. Actually, it comes in when I'm just genuinely enthused about the music and the repertoire is kind of coming easy and it feels good and I like the music...”                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Vincent     | Practice Sessions, Performances, Work. | Positive/Negative | <p>“Well, see that actually has led to some problems in the past... And I really want to see it to my self-satisfaction. But the problem with that is it leads to some serious frustration and anger with like, repeated failure or repeated stuff like that. So, it can actually go to an unhealthy level, and it's actually led to some muscle tension and soreness, which I was always afraid would lead to tendonitis and stuff.”</p> <p>“I think it's part of the hyper focus. When I'm at a gig, I'm fully focused on the gig and when I'm at work, I'm fully I'm consumed by work. When I'm at school, I'm fully consumed by school, etc, etc. I think that's an aspect of my hyper focus.”</p> |

Miguel reported that he had experienced hyperfocus in his practice sessions when the repertoire enthused him. He described the episodes as positive and described learning the repertoire as more accessible. Vincent had both positive and negative incidents with hyperfocus. He stated that hyperfocus allowed him to juggle multiple responsibilities as a student and Research and Development Associate by compartmentalizing his responsibilities. The negative experience with hyperfocus involved over-practicing

repertoire until satisfaction which resulted in feelings of frustration, anger, and muscle tension due to strain and repeated failure.

## **Theme 2: Anxiety and MPA**

Experiences with anxiety that were possibly related to ADHD symptoms emanated from participant responses (Research Question 2). Table 3 contains the location and the source of anxiety supported by direct quotations drawn from participant responses.

**Table 3:** Participants' experiences with anxiety in multiple settings.

| Participant | Setting                                     | Source                                   | Direct Quote                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------|---------------------------------------------|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vincent     | Studio Lessons, Performance                 | Memory                                   | <p>"...it's something that I'll have to file away for later, and I don't want to forget it. So that creates like anxiety to remember what was said to write it down."</p> <p>"I've always had trepidation when it comes to memory. Especially when it comes to memorizing music for like a graduate recital, having to memorize music...umm...because that's completely reliant on muscle memory. I'm a very visual learner, so having the sheet music is a very is a source of relief."</p>                                                                                                                                                                                                                                                                                                                                                                                               |
| Vincent     | Rehearsals                                  | Behavior                                 | <p>"And also making sure that I'm behaving in rehearsal, that kind of thing."</p> <p>"And sometimes that a little too far sometimes, I definitely had comments from a section leader or from the conductor themselves, like, 'Hey, we're all having fun here, but you need to turn it back here and there.'"</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Miguel      | Studio Lessons, Practice Sessions, Recitals | Perfectionism, Preparation, Solo Playing | <p>"Everyone has felt anxious when they know they haven't prepared enough for a lesson, and they're sitting outside waiting for the door to open..."</p> <p>"...I think that the anxiety in one's own practice comes from an idealization of oneself and one's performance that one realizes that they can't live up to. I can't sound like Arthur Rubenstein on piano, or, you know, this or that...That's where all the anxiety stems from, I think. And yeah, I certainly experienced that in my practice sessions."</p> <p>"Preparing for my recital I would say was some of the most difficult times, just because I really wanted it to be good. I was really caught up in the whole 'it needs to be good' thing. And, I think that builds a lot of tension in the body, just being nervous and anxious and tense..."</p> <p>"But solo playing is really where my anxiety lies."</p> |

Miguel stated that he confronted anxiety in practice sessions, studio lessons, and recitals. There is a possibility that Miguel coped with his anxiety using perfectionism in his practice sessions which manifested by setting unrealistic expectations for the final product of his recital. He addressed the issue by setting realistic expectations and imagining a flawed performance. Miguel also experienced anxiety before his studio lessons and stated that he would sometimes feel underprepared. Finally, Miguel shared that solo playing gave him anxiety, but he felt most comfortable performing in ensembles. Vincent's anxiety stemmed from his ADHD symptoms. He would become anxious when receiving new information in studio lessons because of the challenge to recall the information in his practice sessions. He later noted that he generally became anxious with memory or recalling information that included memorizing music. Second, Vincent encountered anxiety when maintaining his behavior in rehearsals. He would become excited when working with other musicians and expressed that when rehearsals were stressful, he tried to alleviate the tension by joking around. Sometimes Vincent would get carried away, which led to section leaders and conductors redirecting his behavior.

### **Theme 3: Motor Control**

Reduction in motor control experiences arose from responses and are displayed in Table 3. The table includes the setting where the motor control issue occurred and the type of motor control issue, supported with direct quotations drawn from participant responses.

**Table 4:** Participants' experiences with reduced motor control in practice sessions.

| Participant | Setting           | Type           | Direct Quote                                                                                                                                                                                                                                                                                                                                                                                |
|-------------|-------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Miguel      | Practice Sessions | Reaching Limit | "You work it up slowly and gradually to 100 and you're still fine. But then for some reason, you just can't get it past there. Your hand won't do it."                                                                                                                                                                                                                                      |
| Vincent     | Practice Sessions | Freeze         | "There have been times when I practice where my fingers won't move the way I want them to, and I always just attributed that to not having the muscle memory built up yet. But, especially in faster passages, more technically difficult passages, sometimes the hand just seizes up and it just stops playing. I've definitely noticed that before, but I never really thought about it." |

Miguel had encounters with reduction in motor control when his hands reached their limitation describing the experience as his hand unable to move past a specific tempo. He also stated that he thinks the phenomenon might be attributed to tension and now has no issues playing through those passages. Vincent noted that there had been moments when his hand would not move as he wanted it to in faster technical passages and explained that his hand would seize up.

## CHAPTER 5: DISCUSSION

This study investigated the experiences of graduate music performance students with ADHD in studio lessons, practice sessions, rehearsals, and performances. Two participants completed a semi-structured interview recounting experiences that revealed valuable insight into the three themes reflective of the research questions: practice and teaching strategies, anxiety, and motor control.

### Theme 1: Teaching & Practice Strategies

#### Fragmentation

In addressing Research Question 1, I sought to determine meaningful teaching, learning, and practice strategies utilized by participants and teachers. In his practice sessions, Vincent fragmented more extensive technical exercises, such as scales and arpeggios, into smaller sections and incorporated fun repertoire between those sections. Vincent's practice strategy possibly reveals how the ADHD symptom, executive dysfunction, affected his practice session.<sup>65</sup> Executive function is categorized into four categories, including inhibition.<sup>66</sup> Poor inhibition in individuals with ADHD exhibits as the inability to resist distractions causing higher levels of mental fatigue in individuals with ADHD.<sup>67</sup> In their book, Knouse et al. discussed how goal completion for college students with ADHD is more attainable if tasks are broken into manageable chunks and how rewarding routines, like video gaming, can be paired with unpleasant tasks to assist

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<sup>65</sup> Gil D. Rabinovici, Melanie L. Stephens, and Katherine L. Possin, "Executive Dysfunction," *Continuum : Lifelong Learning in Neurology* 21, no. 3 Behavioral Neurology and Neuropsychiatry (Summer 2015): 646, <https://doi.org/10.1212/01.CON.0000466658.05156.54>.

<sup>66</sup> Gil D. Rabinovici, Melanie L. Stephens, and Katherine L. Possin, "Executive Dysfunction," 649.

<sup>67</sup> Denise C. Rogers et al., "Fatigue in an Adult Attention Deficit Hyperactivity Disorder Population: A Trans-Diagnostic Approach.," *British Journal of Clinical Psychology* 56, no. 1 (March 1, 2017): 34, <https://doi.org/10.1111/bjc.12119>.

with motivation.<sup>68</sup> Therefore, Vincent’s experience reveals possible evidence of how executive dysfunction can manifest in students with ADHD in practice settings and how fragmentation can be an effective solution to avoid mental fatigue. Finally, pairing engaging repertoire with unpleasant technical work may assist with motivation in practice sessions.

## **Movement**

Both participants discussed the effectiveness of movement in studio lessons and rehearsals included acting out baroque dances and the possibility of improved focus when standing while performing. Their experiences perhaps expose how they coped with hyperactivity in studio lessons, practice sessions, or performances. In a recent study, Hoy et al. revealed supporting evidence that children benefited from movement during cognitive performance and claimed that movement reduced symptoms of hyperactivity.<sup>69</sup> In a literature review, Grassman et al. discovered evidence that thirty minutes of physical activity improved the executive functions of children with ADHD.<sup>70</sup> Thus, acting out baroque dances may have improved Miguel’s cognitive performance while Vincent’s freedom to sway and alternate his weight distribution between his left and right feet may have reduced symptoms of hyperactivity.

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<sup>68</sup> Laura E. Knouse et al., “Organization, Time Management, and Planning.” In *Thriving in College with ADHD: A Cognitive-Behavioral Skills Workbook for Students*, 32-33, (New York: Routledge, 2023), <https://doi.org/10.4324/9781003149620>.

<sup>69</sup> Beverly-Ann Hoy et al., “Hyperactivity in ADHD: Friend or Foe?,” *Brain Sciences* 14, no. 7 (July 2024): 719, <https://doi.org/10.3390/brainsci14070719>.

<sup>70</sup> Viviane Grassmann et al., “Possible Cognitive Benefits of Acute Physical Exercise in Children With ADHD: A Systematic Review,” *Journal of Attention Disorders* 21, no. 5 (March 1, 2017): 367–71, <https://doi.org/10.1177/1087054714526041>.

## Empathy

Vincent shared how his teacher's empathy helped motivate him to continue pursuing his goals. He said his teacher alternated between positive reinforcement and constructive criticism and based her type of feedback on Vincent's mood. If Vincent was encountering a moment of self-doubt, his teacher would use positive reinforcement while employing constructive criticism when he was feeling confident. Vincent's experience, however, lacks contextual evidence to determine how alternating between the two types of feedback was effective. What is known is that individuals with ADHD are more likely to develop a negative self-image and lower self-esteem.<sup>71</sup> One possibility is that Vincent developed a more positive self-view by receiving positive reinforcement from his teacher. Another likelihood is that Vincent was more motivated to work after receiving external rewards through positive reinforcement. Other studies have shown how reward-based feedback can increase learning in adults with ADHD.<sup>72</sup>

## Comradery

Vincent expressed how he could better focus "when there are other people's expectations" placed on him. In an article by Rogers in the *Philadelphia Tribune*, the journalist discussed how individuals with ADHD are utilized body doubling.<sup>73</sup> Body doubling occurs when an individual with ADHD works with another person nearby to

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<sup>71</sup> Laura E. Knouse, Ivori Zvorsky, and Steven A. Safren, "Depression in Adults with Attention-Deficit/Hyperactivity Disorder (ADHD): The Mediating Role of Cognitive-Behavioral Factors," *Cognitive Therapy and Research* 37, no. 6 (December 2013): 1220–22, <https://doi.org/10.1007/s10608-013-9569-5>; Lisa L. Weyandt and George J. DuPaul, "Psychosocial Treatment and Educational Interventions," In *College Students with ADHD: Current Issues and Future Directions*, 63.

<sup>72</sup> Stephanie S.J. Morris et al., "The Impact of ADHD Symptom Severity on Reinforcement and Punishment Learning among Adults.," *Cognitive Neuropsychiatry* 28, no. 2 (March 1, 2023): 157, <https://doi.org/10.1080/13546805.2023.2178398>.

<sup>73</sup> Kristen Rogers, "Benefits of 'body Doubling' When Someone Has ADHD," *Philadelphia Tribune*, June 6, 2023, sec. HEALTH, 2.

serve as a reminder to stay on task.<sup>74</sup> Additionally, this person must be driven as much as the individual with ADHD and not engage in conversation with them. Although the phenomenon is effective for some individuals with ADHD, research confirming its effectiveness is lacking. Brown explains that individuals with ADHD are more likely to engage with activities that brought pleasure or other rewards in the past.<sup>75</sup> Additionally, they are more likely to engage in an activity if they anticipate something unpleasant. Thus, it is possible that for Vincent, playing in orchestra brings him enough pleasure to motivate him to participate and focus. However, he might be able to focus much more due to the anticipation of unpleasant feelings from his conductor redirecting his behavior. Evidence supporting the latter emerged from Vincent's response to a question concerning anxiety. He stated that he felt anxious about behaving in orchestra. Thus, it is possible that a combination of positive and negative past experiences in orchestra allowed him to focus.

## **Environment**

The role of environment on productivity emerged from participant responses. These results are supported by previously stated research by Lasky et al concluding that ADHD symptoms were contextual and dependent on the environment—the more stimulating the environment, the more distractions for individuals with ADHD.<sup>76</sup> Other articles investigating teaching strategies for students with ADHD suggested that teachers modify the studio environment by eliminating visual, auditory, and olfactory

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<sup>74</sup> Kristen Rogers, "Benefits of 'body Doubling' When Someone Has ADHD," *Philadelphia Tribune*, 2.

<sup>75</sup> Thomas E Brown, *Outside the Box: Rethinking ADD/ADHD in Children and Adults: A Practical Guide*, 1st ed. (Arlington, VA: American Psychiatric Association, 2017): 75.

<sup>76</sup> Arielle K. Lasky et al., "ADHD in Context: Young Adults' Reports of the Impact of Occupational Environment on the Manifestation of ADHD," *Social Science & Medicine* 161 (July 1, 2016): 165-66.

distractions.<sup>77</sup> This teaching strategy, however, was for children, but results from this study indicate the strong possibility that eliminating distractions in studio lessons may improve focus for graduate music performance students with ADHD. Additionally, removing distractions in practice settings or moving to a different environment may improve focus for graduate music performance students with ADHD.

## Interest

Responses from Miguel and Vincent revealed how their productivity can be tied to their level of interest. The more interested they were in a topic, the more motivated they were to practice or work. Their experiences parallel recent research showing that the level of engagement with musical activities in children with ADHD varied according to musical context.<sup>78</sup> Other studies have explored the implications of utilizing “ADHD led theorizing” for research and began to include narratives of individuals with ADHD.<sup>79</sup> Much can be gained by having individuals with ADHD inform researchers about their theories on their disorder. If the participant's productivity is tied to their level of interest, it is possible that they did not have issues with inattention. Rather, their attention was contextual. Variable-attention is a term that best describes this phenomenon introduced by Rosqvist et al.<sup>80</sup> Variable-attention gives a new perspective on attention in individuals with ADHD because it does not measure them as lacking, but as different. Therefore, it is

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<sup>77</sup> Lesley Sisterhen McAllister, “Positive Teaching,” *American Music Teacher* 61, no. 4 (March 2, 2012): 21; Melago, “Strategies for Successfully Teaching Students with ADD or ADHD in Instrumental Lessons,” 39.

<sup>78</sup> Eva Margaret Wilde and Graham Frederick Welch, “Attention Deficit Hyperactivity Disorder (ADHD) and Musical Behaviour: The Significance of Context,” *Psychology of Music* 50, no. 6 (November 1, 2022): 1942, <https://doi.org/10.1177/03057356221081163>.

<sup>79</sup> Hanna Bertilsdotter Rosqvist et al., “Intensity and Variable Attention: Counter Narrating ADHD, from ADHD Deficits to ADHD Difference,” *The British Journal of Social Work* 53, no. 8 (December 1, 2023): 3648, <https://doi.org/10.1093/bjsw/bcad138>.

<sup>80</sup> Hanna Bertilsdotter Rosqvist et al., “Intensity and Variable Attention: Counter Narrating ADHD, from ADHD Deficits to ADHD Difference,” *The British Journal of Social Work* 53, 3648.

possible that Miguel and Vincent recognized and accepted their variable-attention symptoms and utilized their interests to motivate themselves to practice or complete assignments.

## **Hyperfocus**

A few encounters with hyperfocus emerged from participant responses that address Research Question 1a. Miguel and Vincent revealed having positive and negative experiences with hyperfocus. Miguel described his engagement with hyperfocus as positive when practice sessions involved repertoire of interest. Vincent's positive experience with hyperfocus allowed him to compartmentalize his responsibilities as a performer, student, and Research and Development Associate. However, Vincent has also had negative encounters with hyperfocus during practice sessions. He stated that, at times, he would practice repertoire until satisfied. This led to feelings of frustration and anger due to repeated failure. In their positive experiences, Miguel and Vincent appeared to have met the criteria of hyperfocus outlined by Ashinoff et al.<sup>81</sup> In Vincent's negative experience, however, it seemed that task performance was not improved. Therefore, based on the criteria outlined by Ashinoff et al., Vincent did not experience hyperfocus in his practice sessions. A possibility of what he encountered could be self-oriented perfectionism, which has been linked to ADHD.<sup>82</sup> One reason Vincent described his negative experience as hyperfocus could be due to issues with set shifting, a domain of executive function.<sup>83</sup> Set shifting involves altering attention or behavior according to

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<sup>81</sup> B. Ashinoff and A. Abu-Akel, "Hyperfocus: The Forgotten Frontier of Attention," 6-8.

<sup>82</sup> Dawn Starley, "Perfectionism: A Challenging but Worthwhile Research Area for Educational Psychology.," *Educational Psychology in Practice* 35, no. 2 (June 1, 2019): 122, <https://doi.org/10.1080/02667363.2018.1539949>.

<sup>83</sup> Gil D. Rabinovici, Melanie L. Stephens, and Katherine L. Possin, "Executive Dysfunction," 650.

shifting conditions or tasks.<sup>84</sup> Therefore, a more accurate explanation of Vincent's negative experience could be that he was confounded to a loop of self-oriented perfectionism, which mimicked hyperfocus.

## **Theme 2: Anxiety and MPA**

I aimed to discover encounters with anxiety and MPA from responses for Research Question 2. Additionally, I sought to acquire evidence to support an increased risk of MPA in individuals with ADHD. Miguel and Vincent shared experiences with anxiety in multiple settings related to performance and ADHD symptoms. However, there was not enough substantial evidence to conclude that individuals with ADHD are more susceptible to MPA. The following discussion on participant encounters with anxiety and MPA are presented categorically in relation to performance or ADHD symptoms.

### **Performance**

Miguel disclosed that his anxiety manifested from solo playing with most of it occurring in preparation for his recital. He learned that the source was setting unrealistic expectations for his recital, which led to tension and increased stress. It is understood that individuals with ADHD are more prone to comorbid disorders such as anxiety.<sup>85</sup> Other research suggests a stronger tendency for the presence of perfectionism in competitive environments that follow classical music traditions along with poor stress management

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<sup>84</sup> Gil D. Rabinovici, Melanie L. Stephens, and Katherine L. Possin, "Executive Dysfunction," 650.

<sup>85</sup> Oslund, *Supporting College and University Students with Invisible Disabilities : A Guide for Faculty and Staff Working with Students with Autism, AD/HD, Language Processing Disorders, Anxiety, and Mental Illness*, 63-64.

and limited coping skills.<sup>86</sup> It is possible that Miguel experienced self-oriented perfectionism that Starley explained develops as an unhealthy coping strategy for anxiety.<sup>87</sup> His experiences also reinforce the possibility of perfectionism being linked to MPA as revealed by Skoogh and Frisk.<sup>88</sup> Based on Miguel's experience and current research, there is a possibility of a relationship between ADHD and MPA and warrants further research.

### **ADHD Symptoms**

The source of Vincent's anxiety was his ADHD symptoms that included poor working memory in studio lessons and performances along with inattentiveness during rehearsals. Previous research has indicated that a concern about the reliability of memory during performances has led to some experience with MPA.<sup>89</sup> It is plausible that the ADHD symptom of poor working memory may lead to MPA, however, when asked about encounters with performance anxiety, Vincent replied that he learned to cope in undergrad. Although no strong connections between ADHD symptoms and MPA can be drawn, Vincent's experience warrants further research.

### **Theme 3: Motor Control**

Both Miguel and Vincent stated that they had experienced issues with motor control through reaching limitations in tempo and the hand freezing up. However, there was not enough evidence to suggest that their experiences were ADHD related. What is

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<sup>86</sup> Francisca Skoogh and Henrik Frisk, "Performance Values – an Artistic Research Perspective on Music Performance Anxiety in Classical Music," 66-67.

<sup>87</sup> Dawn Starley, "Perfectionism: A Challenging but Worthwhile Research Area for Educational Psychology," 122, 135.

<sup>88</sup> Francisca Skoogh and Henrik Frisk, "Performance Values – an Artistic Research Perspective on Music Performance Anxiety in Classical Music," 66-67.

<sup>89</sup> Dianna T. Kenny, "Epidemiology of Music Performance Anxiety," in *The Psychology of Music Performance Anxiety*, ed.

known is that at the *challenge point*, when task difficulty increases, motor learning increases.<sup>90</sup> However, once students move beyond the challenge point, motor learning and performance diminish.<sup>91</sup> One possibility is that Miguel and Vincent prematurely moved beyond the challenge point without addressing technical deficiencies hindering performance at higher tempi. It is also plausible that as already accomplished musicians, they possessed the knowledge to move past their plateaus, but due to ADHD related symptom, poor working memory, they were unable to recall that information.

Miguel and Vincent received prior ADHD treatment prior to attending graduate school which included medication. A few studies have concluded that introducing stimulant medication in children did improve handwriting legibility in students, however this was primarily due to the medication's positive effect on attention.<sup>92</sup> Additionally, this research suggested that medication alone would not improve fine motor skills and recommended rehabilitation services. Since Miguel and Vincent were already experienced musicians and were already receiving ADHD treatment through medication, it is possible that previous training paired with medication assisted with motor control issues that they may have experienced earlier in their training. Nonetheless, present research on motor skills deficiencies in the ADHD population along with participant experiences warrants research into motor control in musicians with ADHD in a variety of

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<sup>90</sup> Jeff Potteiger, *ACSM's Introduction to Exercise Science*, 3rd ed. (China: Wolters Kluwer Health, 2017): 318.

<sup>91</sup> Jeff Potteiger, *ACSM's Introduction to Exercise Science*, 3rd ed. (China: Wolters Kluwer Health, 2017): 318.

<sup>92</sup> Marie Brossard-Racine et al., "Motor Skills of Children Newly Diagnosed with Attention Deficit Hyperactivity Disorder Prior to and Following Treatment with Stimulant Medication," *Research in Developmental Disabilities* 33, no. 6 (November 1, 2012): 2080–87, <https://doi.org/10.1016/j.ridd.2012.06.003>; Marie Brossard-Racine et al., "Persistent Handwriting Difficulties in Children With ADHD After Treatment With Stimulant Medication," *Journal of Attention Disorders* 19, no. 7 (July 1, 2015): 620–29, <https://doi.org/10.1177/1087054712461936>.

circumstances including but not limited to: the experiences of beginning student musicians with ADHD prior and post stimulant medication or the experiences of adult musicians with ADHD prior and post medication. Finally, results from this study along with previous studies encourages further investigation into whether untreated ADHD delays mastery of musical instruments.

### **Limitations**

This study revealed valuable insight into the experiences of graduate music performance students with ADHD in studio lessons, practice sessions, rehearsals, and performances, however, limitations were present. First, this study included the experiences of only two participants, thus, it is impossible to determine if all graduate music performance students with ADHD had or will have the same experiences. Additionally, ADHD symptoms vary drastically from person to person and the experiences of the two participants will not be applicable to other students in the ADHD population. Second, this study evaluated responses from two participants that received prior ADHD treatment. Studies have shown that later ADHD diagnosis leads to poorer academic achievement, lower self-esteem, and lower social outcomes compared to those with childhood diagnosis and treatment.<sup>93</sup> Thus, further study into the effects of late diagnosis of ADHD in graduate music performance students will give further insight into the late-diagnosed population. Third, this study did not collect any demographic data on the participants. Studies have determined the presence of ethnic and racial disparities in

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<sup>93</sup> L. Eugene Arnold et al., “Long-Term Outcomes of ADHD: Academic Achievement and Performance,” *Journal of Attention Disorders* 24, no. 1 (January 1, 2020): 74, <https://doi.org/10.1177/1087054714566076>; V. Harpin et al., “Long-Term Outcomes of ADHD: A Systematic Review of Self-Esteem and Social Function,” *Journal of Attention Disorders* 20, no. 4 (April 1, 2016): 297-300, <https://doi.org/10.1177/1087054713486516>.

diagnosing and treating ADHD while other studies have stated women were more likely to receive a later ADHD diagnosis and more likely to experience higher rates of depression and anxiety.<sup>94</sup> Therefore, more studies involving underrepresented populations, including women, are needed to examine the variety of experiences of graduate music performance students with ADHD. Additionally, collecting demographic data can provide contextual information that can be utilized to enhance conclusions on underrepresented populations.

Fourth, given the nature of ADHD, the researcher found difficulty in maintaining the participants' focus on interview questions. It is possible that utilizing standard classroom accommodations for students with ADHD can aid in receiving better responses. Standard accommodations include sharing interview questions beforehand, preparing a printed copy of interview questions for participants, encouraging participants to participate in the interview in a space away from distractions, and incorporating follow-up interviews.<sup>95</sup>

Lastly, participants found the question addressing motor control unclear. Perhaps employing the descriptions "reduction in motor control" or "reduction in fine-motor control" might promote better participant responses that accurately depict the phenomenon. The final limitation concerning motor control was the absence of

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<sup>94</sup> Yu Shi et al., "Racial Disparities in Diagnosis of Attention-Deficit/Hyperactivity Disorder in a US National Birth Cohort," *JAMA Network Open* 4, no. 3 (March 1, 2021): 7, <https://doi.org/10.1001/jamanetworkopen.2021.0321>; Brittany M. Merrill et al., "Diversity and Representation in ADHD Psychosocial Treatment Research: A Comprehensive Synthesis with Data from over 10,000 Participants," *Clinical Psychology Review* 112 (August 1, 2024): 5-9, <https://doi.org/10.1016/j.cpr.2024.102461>; <sup>95</sup> Uzma Siddiqui et al., "Sex Differences in Diagnosis and Treatment Timing of Comorbid Depression/Anxiety and Disease Subtypes in Patients With ADHD: A Database Study," *Journal of Attention Disorders* 28, no. 10 (August 1, 2024): 1350-1351, <https://doi.org/10.1177/10870547241251738>.

<sup>95</sup> Lisa L. Weyandt and George J. DuPaul, "Psychosocial Treatment and Educational Interventions," 69-70.

evaluation tools to determine if the reduction in motor control was related to ADHD. Studies assessing fine motor control in adults with ADHD and studies assessing fine motor control in adult musicians are severely lacking.

## CHAPTER 6: CONCLUSION

This study aimed to investigate the experiences of music performance graduate students with ADHD in studio lessons, practice sessions, rehearsals, and performances. Furthermore, the researcher was hoping to categorize data that emerged from participant responses into the three themes: teaching and practice strategies, anxiety and MPA, and motor control. The themes were reflective of the following research questions addressed in this study:

- 1) What are the practice and teaching strategies currently being utilized to assist music performance graduate students with ADHD?
  - a. Do music performance graduate students with ADHD utilize hyperfocus?
- 2) Are music performance graduate students with ADHD more susceptible to music performance anxiety?
- 3) Do music performance graduate students with ADHD experience motor control issues while performing their instruments?

The researcher employed a collective case study research method through a phenomenological lens. The two study participants were current or former graduate instrumental music performance students with ADHD recruited from universities in the United States. Participants then completed a semi-structured interview via *Zoom*. The

interviews were then transcribed, coded, and categorized into themes. Next, themes were represented in tables that were supported with direct quotations.

Findings from the study provided greater insight into practice and teaching strategies, hyperfocus, and anxiety. In addressing Research Question 1, interest contributed the most insight. By switching our perspective of inattention to variable attention, it is possible to view individuals with ADHD as different, not lacking. Therefore, attention is attainable if the content provides enough interest. Finally, there is a possibility that the participants recognized their variable-attention and were able to motivate themselves to practice or complete assignments. Other practice and teaching strategies included simplification, fragmentation, empathy, movement, comradery, environment, interest, and realistic expectations.

This study also provided more insight into the experiences of hyperfocus in practice sessions. When all three criteria of hyperfocus were met, Miguel felt his practice session flowed more effortlessly. When Vincent shared his experience with hyperfocus, he stated that his experiences led to frustration and anger due to repeated failure. Vincent, therefore, did not experience hyperfocus and it is possible that due to the ADHD symptom of set shifting dysfunction, his experience can best be described as confounded to a loop of self-oriented perfectionism that mimicked hyperfocus.

Regarding Research Question 2, this study provided additional insight into anxiety, MPA, and graduate music performance students with ADHD. First, there was a possibility that Miguel was experiencing self-oriented perfectionism in his practice sessions. Perfectionism can be manifested as a coping strategy for anxiety or, possibly, MPA. Second, Vincent's experiences revealed the presence of anxiety due to the ADHD

symptom, poor working memory. Additionally, he revealed that memorizing his repertoire gives him anxiety. Thus, there is a greater potential that ADHD symptoms can increase the risk of developing MPA, but further investigation is needed. Additional findings included the presence of motor-control issues during practice sessions, however, there was not enough evidence to suggest that their experiences were ADHD related.

### **Implications**

Findings from this study provided further understanding for graduate music performance students with ADHD that can be utilized by the student population with the disorder to create positive practice sessions. In particular, fragmentation, altering the environment, setting realistic expectations, and exploiting their interest assisted the participants cope with their ADHD symptoms. The following example provides one approach to applying the strategies. Graduate music performance students with ADHD may plan their practice sessions for the day by setting realistic, measurable, and attainable goals that can be completed within the session. Next, the student can list all the repertoire, etudes, and scales and divide them into smaller twenty-minute fragments and incorporate the most exciting repertoire between wearisome tasks. The student can then choose the best environment to complete the practice session removing any visual, aural, or olfactory distractions from the environment. Some options include setting their phone on airplane mode, choosing a practice room with the least amount of foot traffic outside, and finding the right chair and stand. To eliminate coping with self-oriented perfectionism, it is strongly recommended that students use a visual countdown timer and to reference back to the attainable goals set for the practice session.

Other findings included effective strategies participants experienced in their studio lessons. To better assist with learning issues related to executive dysfunction teachers may simplify complex tasks into smaller manageable steps. Employing simplification can provide a more effective learning experience and help avoid frustration and procrastination for students during practice sessions. Additionally, incorporating movement into lessons may help retain focus and improve cognitive performance. Examples include, but are not limited to, acting out baroque dances, physically manifesting phrasing, or incorporating visualizations of other movements that are parallel to the task. For example, Miguel stated that his teacher suggested that his hand should mimic jellyfish movements which helped him comprehend the correct technique. Incorporating positive reinforcement and constructive criticism can also aid in creating a better learning experience. Positive reinforcement involves the teacher recognizing the positive aspects of the student's progress and reinforcing them with praise. Constructive criticism involves empathetic feedback to improve performance and the avoidance of attributing mistakes to a student's character. To further encourage a better learning experience, studio teachers can build a relationship with their students with ADHD and learn about their interests and dislikes in repertoire. The student and teacher can then set goals using the student's favorite repertoire as an incentive to work on other music the student may find monotonous. Teachers can also find ways of bringing interest and novelty to the other repertoire.

In rehearsal spaces, conductors and directors can create better learning experiences for students with ADHD by incorporating more movement to teach phrasing, music theory, or other vital components to the repertoire. Additionally, conductors and

directors can build relationships with students with ADHD and learn about their interests and dislikes. Graduate music performance students with ADHD may find rehearsals are better environments to promote focus and it might be helpful to replicate these environments by discovering or creating other ensembles to participate in including full orchestra, string orchestra, band, marching band, or chamber ensembles.

This study additionally gave further insight into anxiety and MPA in graduate music performance students with ADHD. Findings suggest that narrowing down which ADHD symptoms cause anxiety in practice sessions, rehearsals, and performances can help them exploit the right tools to address their symptoms. For example, if anxiety in studio lessons is related to procrastination, it might be helpful to find repertoire of most interest and use it as a motivational tool. Additionally, they may find setting a practice schedule and avoiding stimulating environments helpful. Finally, procrastination might be a sign of self-oriented perfectionism. By setting realistic goals for each lesson, they might be more motivated to practice. If students are anxious about memorizing their music, they may reach out to their studio teacher and talk about their concerns and struggle with memorization. From there, they can work together and possibly allocate additional time learning and memorizing the repertoire. Studio teachers can also better accommodate their students with ADHD by understanding that symptoms will vary. By encouraging and supporting their students with ADHD to learn and share their learning needs, teachers can provide appropriate accommodations to help students flourish.

During the interview, the researcher asked questions not reflective of the research questions. The questions asked participants what strategies they wished to see in studio lessons and rehearsals to help with their ADHD symptoms. In studio lessons, Miguel

wanted his studio teacher to encourage more exploration. He believed that exploration worked well with the ADHD brain and could be more motivating to practice. Vincent found focusing difficult while his teacher demonstrated on her instrument. It is possible Vincent's focus improves when engaged in movement, or playing his instrument. In rehearsals, Miguel felt that rearranging the sections could help bring awareness to other parts of the music and make the rehearsal more engaging. This method also allows students with hyperactivity the ability to move around. Additionally, Miguel felt that displaying the score on a projector can help with ADHD symptoms. More specifically, it can be helpful for those students with poor working memory. Like Miguel, Vincent wished that conductors would work more on making the supporting parts more interesting and musical. Both participants wished that conductors would rehearse at a faster pace and expressed that too much lecturing diminishes their focus.

Findings from this study are broadly applicable to institutions that follow classical music traditions. As previously addressed, neurotypical students already have encounters with anxiety due to expectations of performing at a high level. It was also noted that the same population in these institutions failed to possess healthy coping strategies and develop healthy lifestyles. If the general student population is struggling to cope and develop healthy lifestyles in these environments then, as findings from this study suggest, the experiences of students with ADHD are much worse. Further, these environments create greater obstacles for all students with learning differences or other neurodevelopmental disorders. Thus, the findings from this research suggest the need for greater modifications including instructional training or liaisons with student disability

and counseling services in institutions that follow in classical music traditions to better accommodate these talented students with learning differences.

This study examined the experiences of two graduate music performance students with ADHD from universities in the United States. Furthermore, I categorized data that emerged from participant responses into the three themes: teaching and practice strategies, anxiety and MPA, and motor control. Greater insight into how ADHD affects this population emerged from responses. Of the findings, the notable practice strategy of interest, was utilized by participants to motivate themselves to practice and complete term papers. Second, I discovered that the phenomenon hyperfocus, manifested in one participant while the other participant may have experienced a loop of self-oriented perfectionism. Finally, I found the potential for increased risk for graduate music performance developing MPA due to ADHD symptoms, but further research is still required to confirm and investigate the extent of risk.

Although the scope of the study was primarily concerned with ADHD and its effects on performance, it is important to emphasize the value of overall health. The field of music performance is extremely competitive, and it can be tempting to prioritize the craft above wellbeing. When I asked the participants anything else they wished to share, Miguel stated that ADHD affects every aspect of life and treating it makes everything healthier. He initially began his diagnostic journey by first seeking treatment for depression and later discovered the core issue was ADHD. Once he started ADHD treatment with medication and talk therapy he felt an overall improvement in his health. Miguel's experience speaks to the importance of seeking ADHD treatment for the benefit of one's overall health, not just for becoming a better student or performer.

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## **Appendix A: Interview Protocol**

### **Interview Protocol**

1. Tell me about how you arrived at your ADHD diagnosis.
2. Tell me about a typical day at school.
3. Describe to me some helpful teaching strategies your teacher has used in your lessons.
  - a. Describe any teaching strategies that you wish to see more of in your lessons to help with ADHD related issues.
4. Describe to me some helpful practice strategies that have helped you in your practice sessions.
  - a. What are some motivational strategies that have helped you?
  - b. What are your experiences with hyperfocus in your practice sessions?
5. Tell me about a challenging day playing your instrument.
  - a. Did you feel a temporary loss of motor control?
6. Describe to me some helpful strategies used by your conductor or chamber coach that have helped.
  - a. Describe some strategies you wish to see utilized by your conductor or chamber coach.
7. Have you ever experienced performance anxiety as a graduate student? If so, tell me about one of those experiences.
8. Have you experienced any type of anxiety in your studio lessons, rehearsals, or practice sessions? If so, tell me about those experiences?

9. Have you experienced a situation as graduate performance student where you believed ADHD has helped you? If so, describe your experience.
10. Is there anything else about your experience as a music performance graduate student with ADHD that you wish to tell me?

## Appendix B: Institutional Review Board Approval



### Institutional Review Board for the Protection of Human Subjects

#### Approval of Initial Submission – Exempt from IRB Review – AP01

**Date:** February 08, 2024

**IRB#:** 16903

**Principal Investigator:** Eugenio Alfaro

**Approval Date:** 02/08/2024

**Exempt Category:** 1 & 2

**Study Title:** Music Performance and ADHD: A Qualitative Study on the Experiences of Graduate Music Performance Students with ADHD

On behalf of the Institutional Review Board (IRB), I have reviewed the above-referenced research study and determined that it meets the criteria for exemption from IRB review. To view the documents approved for this submission, open this study from the *My Studies* option, go to *Submission History*, go to *Completed Submissions* tab and then click the *Details* icon.

As principal investigator of this research study, you are responsible to:

- Conduct the research study in a manner consistent with the requirements of the IRB and federal regulations 45 CFR 46.
- Request approval from the IRB prior to implementing any/all modifications as changes could affect the exempt status determination.
- Maintain accurate and complete study records for evaluation by the HRPP Quality Improvement Program and, if applicable, inspection by regulatory agencies and/or the study sponsor.
- Notify the IRB at the completion of the project.

If you have questions about this notification or using iRIS, contact the IRB @ 405-325-8110 or [irb@ou.edu](mailto:irb@ou.edu).

Cordially,

Aimee Franklin, Ph.D.  
Chair, Institutional Review Board



**Institutional Review Board for the Protection of Human Subjects**  
**Approval of Study Modification – Expedited Review – AP0**

**Date:** April 17, 2024

**IRB#:** 16903

**Principal Investigator:** Eugenio Alfaro

**Reference No:** 760741

**Study Title:** Music Performance and ADHD: A Qualitative Study on the Experiences of Graduate Music Performance Students with ADHD

**Approval Date:** 04/17/2024

**Modification Description:** Recruitment Update #1

The review and approval of this submission is based on the determination that the study, as amended, will continue to be conducted in a manner consistent with the requirements of 45 CFR 46.

To view the approved documents for this submission, open this study from the My Studies option, go to Submission History, go to Completed Submissions tab and then click the Details icon.

If the consent form(s) were revised as a part of this modification, discontinue use of all previous versions of the consent form.

If you have questions about this notification or using iRIS, contact the HRPP office at (405) 325-8110 or [irb@ou.edu](mailto:irb@ou.edu). The HRPP Administrator assigned for this submission: Kat L Braswell.

Cordially,

Aimee Franklin, Ph.D.  
Chair, Institutional Review Board

## Appendix C: Interview Transcripts

### Participant 1 Transcript

**00:02 PI:** All right, okay, so first question, so tell me about how you arrived at your ADHD diagnosis.

**00:14 Miguel:** Yeah, so I had been in psychotherapy for some time. And, you know, my psychologist that I was seeing, you know, said that I exhibited some of the signs of ADHD, and this was during my undergrad. And I don't know if you'll include this, but you know, I was given some Adderall, you know, off prescription and and tried it out. And, you know, I, I talked with my therapist, you know about that, and she said, Oh, well, it sounds like, you know, it had an effect on you, like, you know, you have ADHD, not someone who wouldn't. And so with that in mind, you know, I'd always had difficulty reading and concentrating and, you know, just reading a passage and then it, you know, just going over my head and going, oh, man, what did I just spend five minutes doing? And so it school has, I've always done well in school, but it's always, you know, been some work to do that. And so when I started grad school, I really kind of felt that pressure, and had, you know, had my therapist kind of ringing in the back of my head. So I, I ended up going to a doctor who then went ahead and diagnosed me with ADHD and prescribed me Adderall based off of, you know, kind of my psychologist's recommendation as well. And so, yeah, then I've been on, you know, stimulants to treat the ADHD ever since then. And that was really, kind of the first time that I even really considered that I had ADHD was, was when my psychologist brought that up, you know, because I thought, you know, attention deficit and everything, you know, typically people didn't perform well in school or weren't the most achieving in many ways. And so I just thought, Oh, well, I I don't have that, you know. I mean, I don't have any, you know, reason to be treated. Look at how well I've done. But then, you know, really, once I once it was treated, it really changed the way that I was able to do work. And, you know, could do it with a lot more ease, and so, so that's kind of how I arrived at at finding that out somewhat late to the game, yeah.

**02:50 PI:** So what were some of those symptoms that you saw as far as, like, related to the musical side? Like, (inaudible).

**03:01 Miguel:** Yeah, yeah, in undergrad. I mean, I was terrible at practicing. I didn't practice, you know, and, and I don't know if I would attribute that as much. I mean, I think that it was in part ADHD. I was also, you know, fairly disillusioned with the piano by that point. And kind of just, you know, as you know, I'm a historical performance, you know, nerd, and so, you know, I, you know, was gravitating more towards that sort of thing anyway. And so, you know, undergrads just, by the end, jumping through hoops and everything. And I think that really, the ADHD makes that so much worse, because, you know, you you, one of the big problems that I had was, you know, just getting myself

to do things that, you know, either I perceived as not needing to do them or, you know, and so it was, the way that it manifested in Me, was completing tasks, whether that be homework, practicing, laundry, whatever, you know, I would think about those tasks and say, Oh, I really need to do this. I should be doing this. I, you know, if only I was doing this instead of being a slobber, you know, something like that, it would manifest in, you know, really building up negativity around certain actions or tasks, and then that providing some sort of mental block to even starting them, because you just don't want to even deal with all that negativity surrounding the task itself. And so I think that really what treating the ADHD did was it took away all of those mental blocks, or all of that, you know, kind of compulsive thoughts about, oh, I really don't want to do that thing, but I really should. And this kind of like conflict between that goes on in one's head, you know, and by treating the ADHD, it. Takes all of those mental blocks kind of away, and just instead of thinking about having to complete the task, you just do the task, you know. And so I had never really had ADHD kind of described in that way and how it interacts with, you know, just basic psychology, you know, I mean, I think that there's a study out that shows that, you know, like 80 or, I mean, I don't know, the numbers are probably wrong here, but you know, a high percentage of people with untreated ADHD also show signs of depression, and once the ADHD is treated, then the depression goes away for the most part, I mean, or becomes situational, or something, you know, it's not, it's not as chronic and and so I think that there's something with the interaction of the self and the mind and ADHD that is more than just, oh, I fidget or I can't, you know, read a book, you know, I think that it goes deeper than that into how we, you know, view ourself, and how we perceive, you know, situations. In a sense, I don't know if that I was just me rambling quite a bit, but I don't know if that kind of makes sense. I think of it in a little different way than just like the stereotypical ADHD checklist, if that, if that makes sense.

**06:30 PI:** Oh, absolutely, absolutely. So this is while you're in school, but tell me about a typical day when you're at school, sort of like the routine.

**06:43 Miguel:** Well, when I was in undergrad, you know, I mean, it was always wake up and go to theory or oral skills and do your musicology and go to music ed class, and then, I mean, it was really pretty jam packed. And then, you know, the evenings would be, you know, filled with way, probably way too much drinking and having fun with with friends. In grad school, it was a bit different. And by grad school, when I started grad school, I was being treated for the ADHD as well. But, you know, I spent a lot of time in grad school, reading and writing, which was nice. I was thinking that I might go a PhD route, and so I wanted to get a writing sample together and all of that. And so I spent a lot of time, you know, reading and writing during the day, even when I wasn't in class and just here at home. And then, you know, I'd go to class when I needed to, and drive up to the city. Generally, I get out of rehearsals or so around four, you know, starting class late morning, and getting out around four. And because I went to [REDACTED] and I live in [REDACTED], I would, you know, stay in the city, because I'd have these, you know, dreaded opera rehearsals at, you know, seven to 10 for eight weeks or at a time. I mean, it was awful.

And, you know, so I was, I actually had become a regular at a bar down in the plaza, and so I'd go between four and seven to the bar and hang out with some of the regulars and and friends, and then I'd end up going to rehearsal and for opera and, you know, reading a book through staging rehearsals, but that was kind of more or less a typical day in grad school. It really varied depending on all of the stuff I had on any given day. But when I was at home, I did find that during the day, at least, I was much more productive as far as reading and writing, and then once I had officially switched to a harpsichord degree as well as conducting a lot more practice as well. So I can certainly see, and I don't know if it's just you know, the difference between Graduate Studies and undergraduate studies, but I certainly saw a big shift in kind, of my daily habits once my ADHD was diagnosed and treated, for sure.

**09:07 PI:** Yeah, and the stuff you're reading and writing about was that related to the classes?

**09:14 Miguel:** You could say that to a certain extent, it was, it was odd (at) [REDACTED] because we didn't have as extensive a musicology faculty as like [REDACTED], or some of the bigger universities. And so, you know, we had to have the NASM accredited, you know, classwork. But it wasn't like, you know, sometimes it wasn't really a musicology class. We had, you know, the regular research, you know, how to write a footnote class. And then we had, you know, this, what was it called, the performer, teacher, scholar, or whatever. And it was, it was supposed to be a musicology credit, and it was kind of just a survey on how the different disciplines of music interact. I mean. And it was nice, because these classes kind of gave you the freedom to do whatever research you wanted in terms of writing a term paper. So I just went with research that I had always kind of liked. And even in undergrad, I had, I had been, you know, historical performance was, was kind of what I was interested in. But I've been a CP Bach fanatic for years and years, and really, like Frederick's court in the North German kind of esthetic, and so that's the way that I gravitated, was, just because that, that that area of interest is, has been around for some years so, so typically, whenever I do actual formal, formal research or writing, it's typically on the North German esthetic, like 1730 to 1800 ish.

**10: 54 PI:** Cool, cool. Describe to me some helpful teaching strategies your teacher has used in your lessons. So this would mean keyboard instructor, I guess.

**11:09 Miguel:** Yeah I'm trying to think because, I mean, there's all sorts of different strategies, you know, in an undergrad, you know, it was scales and all of that sort of stuff, which I'm not sure if, I mean, they were effective. Of course, everyone has to play their skills. Play their scales and arpeggios, but, you know, I don't know if that was the most helpful thing for me. I didn't have, I mean, I was close with my teacher in undergrad, but I didn't, I didn't feel like I progressed all that much in undergrad, and I think that I was also because I was kind of checked out. I didn't really care about progressing. I knew I wanted to go into conducting, and so I saw the piano stuff as kind of a as just a means to

an end to get the first piece of paper. So I'm not sure if that's the best place to look once I started, once I started taking harpsichord lessons. You know, some some basic strategies always help. The biggest thing from a historical perspective as a harpsichordist, is like dance suites, French music, German it doesn't matter what it is the harpsichord piece. You can generally reduce it down to a continuo part. And so by taking all of the embellishment filigree and reducing it down to just chords, makes it, you know, manageable. And of course, you know, you can track the harmonic progression and and really, kind of see where the phrase is leading without, you know, the ambiguities of embellishment. So that was always a really helpful technique. Was to take, you know, all of this counterpoint and moving voices and really say, what is Bach doing here? And at the most simple so that was an effective strategy. And then, you know, vice versa, when you're when you're just kind of getting into a continual line oftentimes, you know, my my professor had me just play the bass part by itself, of course, and really get a feel for that groove and how the cellist might, you know, be articulating. But then, instead of just playing, going into a realization, playing the melody or fiddle part or something in the right hand with the bass, really gives a better idea, and gives you a good idea of where you don't want to double the top part or this or that and so, so really reducing things to to, to whittle them down and make them simple. I think was, was very useful. I'm trying to think of specific practice strategies in in harpsichord, we we arpeggiate and roll pretty much everything. And so what I was taught, and what I now teach to harpsichordists, is to this arpeggiation exercise, where you start with C, and you roll a C major chord up and then down, and then you go to D and C, you just work your way up the scale. And it's like, you know, C, then B diminished in first inversion and then C and first inversion F, G, F, and first inversion B and first inversion C, and you go up the scale and down, and you know, really gets you can play with the kinds of arpeggios that you're making, and you can speed up and slow down, and you can really just use it as as a warm up, or as a, you know, way of having a blank palette that you can just kind of mess with colors on as far as gestures, you know, go with arpeggios. I think that embodiment is is fairly important. As well, particularly in Baroque music and in dance music. I think embodiment is really necessary, because it's supposed to be a dance. And I think that you know different preconceived notions about meter and stuff that have been ingrained in us over the past 100, 150 years, you know, play a big part in that. And so I always think of that triple meter. And so my professor always, you know, would say, like you have to act out the Baroque dance, and kind of what gesture you want. You know, is it like a this thing you know, where you know your arms going up and like a ballet dancer, or is it like a curtsy thing, where you're going forward, or, you know, what kind of gesture, are you really? What courtly affect, you know, are you going for? And in triple meter, you know, we always think of one as being the heavy, strong, beat down, 1231, but really in Baroque dance, one was always an up movement. And so just like embodying these different dance movements, I think really does help get an idea of musical, you know, events that are happening. I'm trying to think, you know, when I started harpsichord, really, technique is not something that harpsichordists ever talk about. So, you know, I don't know if there were really many technical exercises that I can pinpoint, because we

just don't really, we don't really talk about technique. I mean, of course, imagery and metaphors are always useful in lessons, you know, and to technique is talked about some, you know, but it's always in contrast to, like, whatever keyboard instrument you played before, because no one starts on harpsichord. So it's always like, Oh, well, pianists, you know, use your back and shoulder muscles to really dig into the key bed. And harpsichordists don't need to do that at all. And so it's, you know, just light fingers. And my professor would always say your hands have to be like a jellyfish on the keyboard. They just kind of move around, but, but it's not like you're picking them up and putting them down like you would on piano. And so some technical things, but there weren't really exercises to go along with that. It was all very kind of in the clouds, you know, metaphors. And this is how you would, you know, think about limiting your movement or making it more economical, or something like that.

**17:39 PI:** Definitely. Are there? Describe any teaching strategies that you wish to see more of in your lessons to help with ADHD related issues?

**17:52 Miguel:** Yeah, I think that it's always important to encourage students to explore what's possible. I've seen this recently because our [REDACTED] orchestra's concert-master [REDACTED] has joined us, and he's just fabulous, and we've been taking him around to do some master classes at the universities. And although he's a Baroque fiddle player, I mean, as you know, just good playing, good playing, you know. And he did his undergrad and masters at [REDACTED], and then went to [REDACTED] for his DMA, and then went back to [REDACTED] for his historical performance masters. So he's just like, you know, killer good and, and, you know, he was, he's mainly doing master classes with modern players. And so when I, when we went to [REDACTED], all of these players were great, really, good sound, and, and, but, but, you know, [REDACTED], you know, asked one of them, oh, well, why are you, you know, using this bowing, or, why are you using this fingering and and they said, Oh, well, you know, because my, my teacher told me to, you know, and I think that that's fine, you know. [REDACTED] said, Oh well, you know, instead of keeping your very nice Suzuki straight, risk, you know, perhaps to get that, you know, reach down, you know, perhaps, you know, you can do a little bit of a pancake hand to make you know your your one a little bit so that you can make that jump a little bit easier, you know, or something. So, you know, it's just like you don't have to stay within your box of what is, what is standard and what is good. You know, I would think that encouraging musicians with ADHD or otherwise, but I think that the ADHD brain likes to just explore and wants to, you know, everyone always talks about hyper focus or this or that, but I think that it's really the want to, you know, see what's possible. What doing it one way is great, but you might explore, you know, 10 different ways, and you might still do it the first way you did it. But, you know, it's about building a toolbox where you can apply these different possibilities and ideas to different situations. And so, you know, in that moment, I think that you know that student, you know, perhaps was a little bit uncomfortable, and you know, had to try something new. And it's like, well, you know, do I go against my teacher? You know what my teacher said, but you know. And of

course, all teachers are different, but I would hope that you know, as a teacher, if my student came in and said, You know, I know you said to do it this way, but I've been experimenting, and I really like it like this, you know. And it sounds good to me, you know. And me as a teacher, I would, I would either think, you know, either, well, that didn't sound good to me, and that's why you should do it my way. And here's why you know, but good that you explored this. This is my line of thinking, you know, which is a great opportunity to say, you know. But also I would also think, you know, well, that's a great way of doing that. The bet, the one thing I'm kind of rambling, but the one thing that I think is important is, is to not do something just because your teacher told you to, but to do something because you have an artistic reason behind it, and even if you're copying and pasting your teacher's artistic reason, you should still use that artistic reason rather than saying because my teacher said so and so. I think that we have to get out of that mindset of like the teacher has to dictate what is right and good, but should rather encourage students to explore what's possible and try to justify their own artistic experiences. And that's just my thinking, so I that's generally what I would say. I don't know if that particularly helps ADHD students or only ADHD students, but I do think that it helps guide what it really means to be a musician, and that's to experience, you know, art and to make something meaningful. And I don't think that something can be super meaningful if it's just parroting what somebody else told you to do, if that makes sense. And so I think that that could, you know, of course, excite, or at least with me, you know, my teacher, you know, said, basically, figure it out, and we'll talk about it, you know, at your next lesson. And you know, then I take that away and go, Okay, well, you know, apply some of that, and that's how I progressively got better. And so I think that that challenge to explore my own sense of taste and esthetic and try to justify that sense of taste in my lesson, you know, kind of gave me an outlet that wasn't just, oh, I have to go practice. That makes sense. So in a sense, by exploring, I felt as if I it didn't become practice. It was it became exploration. It became fun. What can I do with this? How can I make this different? How can I, you know, challenge myself? And so I think that that's a lot more fun than feeling like you have to go practice orchestral excerpts, you know, in your practice room for, you know, two hours to feel like you accomplished something today.

**23:33 PI:** No, that makes sense. I think you've already answered some of this, but describe to me some helpful practice strategies help to you in the practice, in your practice sessions.

**23:46 Miguel:** Yeah, a big thing that I do, and I think that most orchestral musicians should do this. We have recording technology now. We've had it for 100 years or more, and I think that it's really good to play along with recordings, but not just one, you know, not just one recording, not just the Berlin Phil under Karajan or something, you know. I think that it's good to, you know, especially if you haven't played the piece before, to just get an idea of it, to listen to it, for sure. But I think that playing along is great and and play along with a bunch of different recordings to see, you know, all the different

variations. That's as a continuo player, and that's my closest link to being an orchestral musician. You know, I find playing with recordings really helpful. I know that a lot of people don't like that, or look down on it, but, but it's another exploration, you know, because, I mean, you are limited to some extent of all that you can come up with. And so the more that you listen and and explore what what other people are doing, I think the more that you know you expand your own palette. And, you know, you might be listening to something and go, Oh, that was a really cool articulation, you know, oh, that was really, you know, nice. And you might take that into rehearsal, and might not ever even do it, but, but at least, you know it's possible. And you know, if you're sitting as a concert master in some orchestra or something, and the conductor turns to you and says, you know, I think we should change that bowing, what do you think? And then you have something, you know, that you've heard in another and, oh, they like that, you know? So I don't know. I think that that's that's really helpful in preparing for, at least ensemble wise music, I mean. And of course, you got to listen to recordings for solo stuff too. I'm not sure if that's as useful to play along with. It can be. I don't really play along with solo solo repertoire, though, but yeah, listening is good, at least in my practice for solo repertoire. Yeah, I talked about paring everything down to a continual part and stuff like that. I mean, of course, just, you know, slow practice. You know slow good practice. I I think that a lot of the general practice, you know, extra practice techniques that, I mean, I'm not the best person to ask, because I'm not a great practicer, but, you know, I think that generally, the practice tips that that people in pedal are generally good. Actually, it's just a matter of employing them. I I think that I'm bad at practicing because, partly because of the ADHD, I just want to, like play it, you know, I don't want to practice it. I'm okay with fumbling through it because it's fun to play, you know. And I think that there's some validity to that. I mean, you'll ingrain some bad bowings, or, you know, fingerings if you're a fiddle player, but, or, you know, in my case, I never use the same fingerings when I'm playing, you know, harpsichord. And you know that that has its own problems of its own, but, you know, I mean, I, I, I would rather have fun and play the music, you know, for more amount of time than then slog through a really grueling practice session and feel like, Oh, well, I, you know, got through the first four measures, you know, but I have them really good now, you know, I mean, so, I mean, there's a little bit of both of that, because you need a little bit of both every now and then. So I don't know it. I'm not probably the best person to ask on, you know, what are the best practice techniques? Because I probably don't practice as much as I should. I mean, I think that, you know, as I've gotten older, and you probably have experienced this too, you have to be a lot wiser with your practice time, because it starts disappearing, and so you get a lot better at practicing. And I don't with me, I don't really know how it happened. It just kind of, you know, had to happen. And so it did. I think that it's really about identifying the hard places, the places that you actually need to practice, you know. Because I, like I said, I like playing through it, and I'll just fumble through the hard bits, you know, and get onto the easy stuff. And so I think that that's a good way of actually identifying what you do need to practice, you know. And I think that that's really how you become economic with your practices is really being able to identify what I need to practice and what I don't, of

course, then you always get to your first rehearsal and the stuff that you thought you didn't need to practice, really, you did the stuff you didn't. You know, you did practice you didn't need to. So, but, but, yeah, I think that you get better and better at that as just you become busier and you know you have to, you know, you have 30 minutes today to, you know, get together, you know, some crazy Strauss excerpt or something, you know I mean, and that's how it is. So.

**28:59 PI:** What are some motivational strategies that have helped you?

**29:03 Miguel:** Motivational strategies, I don't know I generally. I think that imagining what you want a performance to be like can actually be really motivational, you know, because I try to picture myself in performance sometimes when I'm practicing or or or just score studying or this or that, because I think that, you know, you have to have some concept of What you want the end product to be. And this goes along with the recordings, bit too, you know, if I'm only listening to Freiburg Baroque Orchestra, well, that standards a little bit too high for where I am, you know, I mean, so you have to know where you want your end product to be, but you have to be, you know, reasonable. Not everyone can be, you know, Kreisler and so I. Yeah, I think that you have to still envision it, though, because motive, you know, motivation is good. I think that what I struggle with more is not being motivated, but letting my anxiety, you know, kind of cripple that motivation in a certain extent. And so, you know, just kind of keeping in mind you know that throughout the process that you know you're you're doing the best that you can. And even if there's mistakes, you know that's okay, because you know you you practiced and you prepared, hopefully, the best that you can. And you can say that you know, and and then if you can picture the performance, you know, and if you can picture yourself having mistakes, that's even better, you know, don't picture your perfect performance, but picture yourself having some mistakes, and you're getting through the piece, and then the audience claps. It's like, oh, okay, well, they're not throwing tomatoes, so that's good. I don't know that motivates me, because oftentimes I can get bogged down by, oh, man, I really hope that they like it. I really hope they like me. I really hope that they, you know, find it a good, pleasing performance. And I think that, you know, that can be good to hope for that. Everyone hopes for that. But what I hope that I can put in my my best, hardest work, and even though I know I'll have some mistakes, because it's live music, I I know that the audience will will enjoy it because I did the best I can and I trust myself as a musician, I think that that kind of mindset lends more to motivating oneself than, Gosh, I really need to get all of this right for them to like it. I think that that can, that that mindset can really cripple one's motivation to, you know, practice. I guess everyone's different though as well, you know, some, some people might really need that, you know, kind of parental voice to kick them into action. I find that it is like my own worst enemy. So.

**39:09 PI:** That's good. What are your experiences with hyper focus in your practice sessions?

**32:18 Miguel:** Hmm, yeah, I find it more often I practice more continuo stuff than solo stuff, and I find that I can get into it a bit more. I think that the hyper focus comes in more when I'm not trying to do a grueling practice. Actually, it comes in when I'm just genuinely enthused about the music and the repertoire, you know, is kind of coming easy and it feels good and I like the music, and yeah, then I can just really get into it and go, let's really perfect this. I think that you can make yourself do that with any music, though, to a certain extent. I mean, I don't know if you put Ives in front of me or something. I'm not, I'm not going to be too happy, but, you know, but Telemann like, I can, I can, I can spend hours, you know, playing some Telemann. And that's, I don't know if that's just a taste thing that I need to get over. But, yeah, I find that the more I like it, the more I can hyper focus. And that's great practice time, because it feels really good. So I mean, I wish that, you know, I could get into it a bit more with, you know, other repertoire, if I, if I don't like it, or this or that, but, but generally, I would say that when I'm when I'm medicated, I can, I can do a pretty good job of, you know, practicing and enjoying it for the most part, no matter. And I don't know if it's particularly hyper focus or or not, but yeah, I do try to, I try my best to zone out. And just like, you know, say this is my time to practice, I'm not going to worry about anything else going on right now, and that's a lot easier to do with medication. So yeah.

**34:21 PI:** Tell me about a challenging day playing your instrument.

**34:26 Miguel:** Lots. Yeah, preparing for my recital. I would say was, was was some of the most difficult times, just because, you know, I really wanted it to be good. I was really caught up in the whole it needs to be good thing. And, you know, I think that that builds a lot of tension, like in the body, just, you know, being nervous and anxious and tense, and I already get a fair amount of shoulder pain when I played, just because of bad tension. I probably need to do Alexander technique or something, but, but, yeah, I during, during the during the recital prep, you know, I just like, felt tense all the time, and and playing, wise, it became a struggle, because I really couldn't practice for much more than an hour or so without it becoming fairly painful in my neck and and then it would just kind of be a snowball effect, and, and it's, it's weird because I look back on it now, and I play some of the music, particularly some of the continuo stuff that I kind of remember struggling with, or being, being a slog. And, you know, there's 16th note passages that I remember, like, really playing slow on the metronome, and then, like, I couldn't get them fast and, and now I can just whiz through them, just reading them, you know, and I hadn't practiced them in two years. And, and I think I've gotten better too, but I think that it's more that I was just so tense, you know, at the time, that it was almost like I was, like my hands and everything were just so intense that it was almost incapable of, you know, playing that fast. For some reason, I think it was really a mental thing to a large extent, but, that manifested physically, and that was not the most fun. That wasn't I can't think of one particular day, but I know there were a lot of days like that.

**36:34 PI:** So did you feel a temporary loss of motor control on these challenging days?

**36:43 Miguel:** Oh yeah, I would say so. I mean, it would, it, I wouldn't say temporary loss of motor control, because that makes me seem like I just like, kind of like, became a limp fish at the keyboard or something. But what I, what I, what I felt, and maybe you would describe it this way given your your research, you know, but it would just be like, you know, you put the metronome on at 80 clicks, and you can play the 16th notes fairly fine. You work it up slowly and gradually to, you know, 100 and you're still fine. But then you but for some reason, you just can't get it past there. Your hand won't do it. And you know that that's not that fast, you know, but for some reason, it's just like too tense, and, you know, you keep using the wrong finger, and then, you know, you just, it's just like that kind of feedback loop of of terribleness and, and I don't know if I would say that it was like loss of motor control, but I would say that it was certainly some sort of impediment to my physicality of playing, yeah, But yeah, it was odd,

**37:08 PI:** Definitely. Oh, this goes more to ensemble stuff. Describe to me some helpful strategies used by your conductor or chamber coach that have helped you.

**37:12 Miguel:** Yeah, you know, it's funny because I'm not all that often in an ensemble. I'm not directing these days. So I don't know what what best helps my group, but yeah, I think that. I think that in an orchestra or an orchestral setting, and in a chamber music setting, the coach or director or leader, I think that it's always good to point out what players should be listening to, you know. I mean, if you're playing a second violin or viola part, you know, and you're just done, done, done, playing eighth notes all the same note, you can get pretty mired down, and it can get very unmusical. But if the if the director, can direct your attention to what is important, I think that then it's much easier to make those eight minutes more musical, or something like that. I mean, just getting into like rehearsal techniques, I think that that that is some of the biggest, biggest stuff is just bringing awareness to certain parts. I always think of, you know, a big thing that the fiddles always here. First fiddles always here is play into the seconds, you know, or or, you know, tune down to the seconds, because they're often, so, you know, an octave apart. And so being able to tune the top to that makes it easier, I mean, and that's just like another bringing awareness to something, you know, and, and getting the players out of autopilot mode of, yeah, I'm just playing, you know, I'm, I'm phoning it in. And, you know, and, and you can. See it too. I mean, as a conductor, I can tell when players are being lazy, you know. I mean, you can just tell, because the, you know, their bow moves this much, and their fingers are kind of going like this, and they're going like this, you know. And then the player in this chair in front of them, you know, is, you know, going all the way from frog to tip, you know. And it's like, okay, well, that, you know. So I think that in a certain sense, you have to by bringing awareness to certain musical moments or in other parts, or in their own part. I think that, you know, you can kind of empower people to want to make the music more and not just, you know, kind of phone it in. You know, really, when I, when I think of, like, all of the rehearsal techniques I use,

pretty much, all it is is, you know, bringing awareness to things, you know, oh, that was out of tune. Let's listen, you know, oh, that was the wrong rhythm. Let's look at that again. You know. I mean, really, so, I mean, as an ensemble director, I think that's you don't need to be looking for things. I think that ensemble directors that look for things to that are wrong are not looking at it correctly. I think that it's, how do you bring awareness to the things that are wrong, not tell the players that they're wrong. They probably know for the most part, too. And so it's, you know, but they've just played, you know, 100 measures, and you haven't made a sound. So, you know, you can think about these things, you know. And so they so I think that that's the main thing is, is, is not saying, Oh, this is wrong, you know, let's fix it, but saying, Oh, well, you know, this thing is going on, and so that I totally understand why you would come in early, but ignore that, you know, or those sorts of things I think are a lot more helpful than, you know, just saying, Oh, the tuning is bad. There. Fix it, you know that. And then I don't think that that really does much. And typically people know when they're out of tune, or hopefully they do.

**42:04 PI:** You probably already answered this question or but describe some strategies you wish to see utilized by your conductor or chamber coach.

**42:16 Miguel:** Yeah, yeah. I mean, same kind of thing. I think that, yeah, bringing awareness to things is, is overall, the best approach? Yeah, I think that I haven't done this because it's just kind of in a professional ensemble. You don't really have the time to do this, but in an academic sense, I found that it was really helpful. One of my my conducting professor in grad school for a week had everyone just sit wherever they wanted, so they didn't sit in sections. And so you'd have, like, the trombonist, you know, sitting in the first violins and the clarinetist, you know, sitting in the cello section, and, you know, the cellos sitting by the percussion, you know, or this or that, and it was just kind of haphazard everywhere. And that was really fun, that was really cool and, and I think that it brought an awareness to everybody's part in a way that they they didn't really realize before, you know. So that's a cool kind of technique that would probably be good to use in, in an academic sense, probably more often. I remember, you know, I think that something that was really helpful in in in graduate school, another Academic kind of technique would be the conductor would put the score on a projector screen in the front, and it would be like, kind of, you know, image sharing, you know, on the iPad. And they were using their iPad as the score. And so when they turned, you know, turn up there, and that way, when they stopped and rehearsed things, you know, it's again, bringing awareness to other parts, you know, because you can, you know, get out of just your, you know, staff and see everybody's you know, part. And I think that that was very useful, and that's an easy thing to do, I think, or have a graduate student, you know, they're, you know, tapping along on their iPad or something that was a nice rehearsal technique. I'm trying to think of things that are like ADHD specific. I hate a slogging, you know, chatty rehearsal. I think that probably for everyone's sake, particularly those with ADHD, it's good to keep a more quick rehearsal pace with with less dead air, you know, but, but you can also go the other direction that people really hate, you know, when you don't give

them enough time to pick up their instrument and stuff too. But I don't know if you've ever seen these tangent but. These old rehearsal footages of Stokowski. And, you know, he'd be like, alright, 12th bar ready and, and he'd just go, and then he'd go, that wasn't together. No, no, you know, but, but yeah. So you can't, you don't want to do that, of course, but you have to give time for people to think. But I think that the more downtime you have, and then they start, you know, sitting there with their instrument. They're going, okay, yeah, get it out. Get it out. You know, I don't think that's good, yeah, just general, you know. I mean, when you, when you, when you, I haven't really heard any bad rehearsal techniques from from conducting professors, if that makes sense. I've seen, I've seen some bad rehearsing, for sure, but, but generally, like, you know when, when you open up Elizabeth Green's conducting book or something similar, you know, generally the rehearsal techniques are, are the good ones that I think should be employed. You know, the conductor that the rehearsal, the director that goes back and does something for themselves, you know, like, oh, I, I messed that up there. I want to feel better about it. That's that's generally frowned upon in my book. I think, you know, you have to do something for the ensemble now, for yourself, you know, or the or the coach that goes, Oh, I missed that transition there. Can we go back? I want to hear it again. Well, yeah, I mean, I think that that's not as good. So I think that really being concise and having you know specific comments to say is helpful.

**46:38 PI:** Absolutely. Have you ever experienced performance anxiety as a graduate student? If so, tell me about one of those experiences.

**46:49 Miguel:** Oh, yeah. So so I shared earlier about about my time preparing the my harpsichord recital. I I get somewhat anxious about conducting, but not, not really. It's like a healthy level of anxiety when I'm conducting, what is and then, as I get into playing with an ensemble, my anxiety is, you know, gets a little bit higher, but not much. But solo playing is really where my anxiety lies. Yeah, there's something, you know, reassuring about being in a group of people and making music together. It feels very good. And it all being me doesn't for some reason, you know, I really don't like being a soloist because I am maybe it's, you know, an imposter syndrome thing, or this that I'm just not the best keyboardist, and I know that. And so, you know, I am not looking to play the Goldberg Variations anytime soon. And so, you know, I, I just think, you know, there's people better at it than I, I do it, you know, let them be the soloists and but I love playing in ensembles and conducting. I don't have to, I just have to wave a stick around so that there's no anxiety that comes around. I don't have to make a sound, no. I mean, I do get anxious, you know, about, you know, I really don't want to miss the horn cue there so that they can come, you know? I mean, I do get that. But I mean, it's different. It's not like a, you know, my back's to the audience. I don't even see them. I'm just, like, zoned into making music with the musicians. And I don't have to worry too much about, like, the notes on my page, you know, I just have to worry about getting gestures and ideas across. And so that's a lot more freeing. As far as, like, grad school coursework is concerned, I didn't ever really have too much anxiety with with coursework. I've always

been, you know, pretty good at theory and musicology and all of that, and so I really like those things, too. For the most part, I the one theory the problem I have is not that I'm anxious about the coursework or anything, but that sometimes I just don't care about the coursework, and so I don't go. And I was really bad about one theory class that I had in grad school that was just a total it was called theory in perspective, whatever that means. And the readings were great. The professor was dreadful. And, you know, the readings were fantastic, though he chose really good readings. And I enjoyed the readings and but the problem was, is that I was, like, the only person in the class that did the readings. And the other problem was, is that he didn't, he didn't lecture on them. He, you know, it's like, I'm going to this class. You have a PhD in this I want to hear your thoughts on I want to hear your theory. In perspective. But he would always, you know, do these very, I don't know, new age, I guess, kind of teaching techniques of small groups and stuff like that. And so it would inevitably be me teaching the person next to me about the article which they didn't read. And I wasn't, I didn't like that. That wasn't, you know, and then, like, the the discussion, if there was one, was just me, you know, recanting the article to the professor, you know. I mean, there were other people that read to and, you know, did some work, but, you know, that was pretty you know. So I didn't really have anxiety about that. It was just frustrating. And so I didn't go. And so I probably had anxiety about, you know, am I going to pass because I, you know, am not going to class, but, but also, my work is always, you know, really, really good, you know, I wrote a really great term paper and everything, and so I was fine. But, yeah, musicology and theory has always been, been things that I'm I'm good at. In undergrad, I was really terrible at, you know, going to theory class though, you know, because as a keyboardist, I was really good at theory, you know, because I had the harmony all in front of me and, and I had been reading that sort of thing for a while, and so I just was like, Oh, I don't want to have to go relearn German augmented six chords, you know, and so I wouldn't go. And I think that was an ADHD thing for sure. I didn't want to just go and be bored and in class I like, I'd rather be doing other things. But yeah, I didn't really have a lot of anxiety surrounding my coursework. Yeah, I've always been a pretty good test taker and, and I like writing and, and so, you know, essays weren't ever, you know, of course, you know, I'd wait until the last minute. And although in grad school, once I was, you know, treated for ADHD, I, like I said, I spent a lot more time reading and writing. And so I was always a bit more ahead in my research than term papers in undergrad. So I didn't have a lot of anxiety. I mean, of course, we always it seems like, I mean, I'm a huge procrastinator, and so I did still wait till the last minute for things. And so, of course, I had some anxiety surrounding that, but generally, I would say that my anxiety is more performance based then, then coursework based.

**52:23 PI:** Yeah, that seems about normal. So you were saying you experienced more of the anxiety doing solo stuff. I guess another word for performance anxiety could be like stage fright.

**52:36 Miguel:** Oh yeah.

**52:38 PI:** But yeah, that's what you were saying as a when you're by yourself, like at a recital. Solo recital.

**52:44 Miguel:** Yeah. I mean, there's this psychologist named Fritz Perls who came up with Gestalt therapy, and he actually says that anxiety and stage fright are synonymous in basically every application of them. So, you know, let's say that I'm anxious because I'm going to lunch with a friend I haven't seen in a long time, and I'm anxious about that. Well, why are you anxious? Well, because you are, you know, thinking in your head. You're acting everything out, just like you would acting out of performance in your head, you know, you you're thinking, Oh, well, I'm excited to meet him for lunch. I you know, I'm going to order this, and I'm going to say, Oh, how are you doing? You know, it's been so long, you know? And I'm and then he's going to say, but then what you're anxious about is that he's not going to say his parts, right? You know that that that he has a different script than you. And that's where really our anxiety lies, I think, both performance wise and just in life in general, is, you know, we're worried that the audience is going to throw tomatoes, and that audience could be an actual audience, or it could be a perceived audience. And so I think that generally, that's what anxiety is made manifest, you know, is, yeah, how is this audience going to respond to me, who I'm scared? But generally, I think that you know what we find. And part of you know, I think being healthy in your own self is being able to say that, you know, you don't care too much about what the audience is going to say. You know, you're pretty comfortable in your own performance, whether that be your performance in life or on stage. You know I mean, and by performance, I don't mean that as like a mask where, like you're putting on a facade. I just mean, like we all do have to perform, and, you know, live with others, you know. And so, yeah, that's kind of my, my general view. Yeah, I you so you had asked. Yeah. Yes, the performance is mainly in solo stuff. I'm sorry, remind me of the question again, because I don't think I did a great job of answering it.

**55:05 PI:** Oh, you're good. So this would be, have you ever experienced performance anxiety as a graduate student? If so, tell me about one of those experiences.

**55:17 Miguel:** Okay, yeah, yeah. So, so, you know, I see the performance anxiety as a direct stage fright as a direct, you know, relation to just life. And so i i as, you know, and much better now than I was when I first started, you know, psychotherapy, you know, like five years ago, and I haven't been in a while, but, you know, I mean, it's building up. I think that, I don't know how old you are, Eugene, but I'm just turning ■ this year. And I think that the closer that you get to 30, the more and more you start to, kind of, like, realize who you are, what you're doing, and you know what you want to do, and if you're content in that, and I think that you really do start to, you know, form that big S sense of self. And I think that leading up to that is really hard, you know, like, like, early to mid 20s kind of sucks, you know, because you're like, I don't know who I am or what I'm doing, or, you know, what I want to do. And I think that a lot of that, you know, sucks

because it's right in the middle of undergrad and grad school where we're as musicians, having to perform a whole lot. So not only are we worried about, will the audience like our performance, but we're we don't have a solid sense of self yet, and so we're constantly asking ourselves, do others like us? And I want others to like me, you know? And then we're asking, well, who do I need to be, you know, to get others to like me? And that's, of course, not the way to think about it. How do I need to play to get the audience to like me? That's not the way to think about it, either. And I, you know, so I think that as I've gone through undergrad and grad school, I only consistently got better with my stage fright, because I think that my sense of self became more developed as well, and I started caring less about, you know, what the audience thought of me, and I started caring more About, Did I do well for myself? And so, yes, I had a lot of instances of stage fright, mainly being my graduate recital and undergrad recital and those sorts of things juries. But that's all because I'm very caught. I was very caught up in, you know? I hope they like it, yeah, and, and I didn't really stop and say, Do I like it? You know? Am I content with it? And that's what's more important. I think.

**57:52 PI:** Definitely. This is related to the previous question. And have you experienced any type of anxiety in your studio lessons, rehearsals or practice sessions? So, different settings.

**58:08 Miguel:** Yeah, totally. I mean, everyone has felt anxious when they know they haven't prepared enough for a lesson, and they're sitting outside waiting for the door to open, and they go, Oh man, I really hope that I can talk for 10 minutes and then, you know, maybe play this other piece first, and yeah, and then inevitably, you do get to the piece you didn't practice, and you go, okay, here I go. So yeah, I mean, that's pretty I think that that's pretty universal. Certainly, you know, once again, I think that the anxiety in one's own practice comes from a, you know, idealization of oneself and one's performance that that then one realizes that they can't live up to, you know, I can't sound like Arthur Rubenstein on piano, or, you know, this or that. Though I'd love to, but it's probably not going to happen. So I need to just, you know, sound the best [REDACTED] that I can be. That's where all the anxiety stems from, I think. And yeah, I certainly experienced that in my practice sessions. I think that once again, as I've, you know, gotten older, I think that I'm thinking about that a lot less in my practice sessions, and I'm thinking, oh my gosh, I only have 30 minutes. What is, you know, the hard part here, which is good, I think that that's a lot healthier. And then you said, in ensembles, I, I never have had much anxiety in ensembles. I don't know what it is. Yeah, I've always just had a lot of fun making music with others, and so I don't have a lot of anxiety surrounding it typically. I mean, I guess if I go into something a little bit more. Prepared. I do feel a little bit anxious, but I find that that oftentimes, you know, I just start having so much fun, playing with people that, you know, that kind of subsides pretty quickly. Even if I'm bumbling through something, I can realize, okay, it's not going to all fall apart because of me, and I can just start to enjoy myself.

**1:00:22 PI:** Um, have you experienced a situation as a graduate performance student where you believed ADHD has helped you?

**1:00:37 Miguel:** Hmm, no, I don't. I don't know. I would say, generally, no, I don't, I don't think so, you know. I mean, the Adderall at the end of the day is a stimulant. And I think that, you know, whether you have ADHD or not, it's still a stimulant, you know. And so, I mean, I think that that, you know, the having that prescription probably helps, it probably helps me more than people that don't need it. But certainly, you know, that's kind of a plus. But I don't know if I'd really see, I don't know if I'd really see much neurodivergency as a positive, necessarily. I mean, I see it very much as a neutral, right? You know, it's not really a negative, because you can it's treatable, and once you have the awareness of it and all of that, I think that it's manageable. But I don't necessarily see it as a positive either, you know, so I can't really think of any instance where it's helped.

**1:01:54 PI:** Yeah, no worries. Is there anything else about your experience as a music performance graduate student with ADHD, that you wish to tell me.

**1:02:06 Miguel:** You know, I mean, I think that I've, I've gotten, I think I've rambled quite a bit about it. I don't know if there's, there's any points I didn't really touch on. I just think that, you know, it's interesting, because I think that the ADHD is able to interact with the other parts of our brain that, I mean, of course, we're not, least, I'm not, I don't know. I can't speak for everybody with ADHD, but I'm not, you know, psychotic. I'm certainly, like, have some neurotic and compulsive behaviors. But who doesn't? And I think that ADHD can certainly make that neuroticism and compulsiveness worse when it's untreated. And so I just generally find that it's, it's interesting how the ADHD affects the brain, you know, in so many different ways, and your own psychology in so many different ways that that, you know, I think that if, if the ADHD is treated, one becomes just so much healthier psychologically in all aspects, you know, I'm, I think that, you know, primary care physicians, oftentimes, you know, prescribe SSRIs, and they probably feel better about prescribing SSRIs than Adderall, because, you know, or stimulants because, you know, SSRIs aren't really as addictive. But I generally think that there's like an overall problem with depression and ADHD, but just depression on the whole, you know, I think in the same study that I was talking about earlier with ADHD, it said, you know, that, like SSRIs only had like a 30% efficacy rate in treating depression, if not combined with talk therapy. And so, I mean, and when it was combined with talk therapy, it jumped up to like 80 or 90% or something. And I think that you know that that, that it's it's good to be aware of the different kind of pathological effects of ADHD, and not just attention and but but in more so, the overall kind of gestalt of a person, you know, their whole being, and how that really does affect their their mental health in in other ways, other than just ADHD. And so I think that oftentimes, you know, people try to put a band aid on something like, like with SSRIs, because it's easier than prescribing a more intense medication, like a stimulant or something like that. Of course, there's non stimulant medications for ADHD, too. Um. But I think that it's very easy for for

musicians, because we're all in in our emotions and esthetics and all of that. I think that it's it's easier to attribute it to depression than than to ADHD, because oftentimes, you know we're higher performing individuals. You know that, you know they, I mean, people that get in your studies specific to graduate students. Isn't that, right?

**1:05:26 PI:** Mmm hm.

**1:05:27 Miguel:** Okay, so, you know, I mean, once you're a graduate student, for the most part, I would say that most people that make it that far in music, you know, have since, you know, at least High School, been been really devoted to this thing. And so it can seem like, oh, well, I've had so much, you know, devotion to this thing, then how could I have ADHD? Or why would I, how could I be here? You know, if I, you know, didn't, you know, do well enough, at least. And so the they have depression or this or that, that's why I originally started psychotherapy. Was because I was, you know, depressed, and I procrastinated and, you know, I wanted to figure out how to get my life together. And so, you know, I What really helped was, of course, the talk therapy helped. But, you know, treating the ADHD was probably one of the biggest helps, too. So I think that, yeah, we really have to, you know, kind of take a step back and look at ourselves. And I do think that probably at this current age, you know, I mean, more adults are being prescribed with ADHD now, you know. And I think that that's generally good. What I'm what I'm generally against, is way to young childhood diagnosis, you know. I mean, I don't know if every you know, spastic five year old boy needs to be on Ritalin or Adderall or something, but you know, generally, I think that adults are adults. And you know, the way that you, you know, diagnose ADHD is if you check all the boxes on a list, and you know, maybe you're lying to yourself and you just want a stimulant drug. But, I mean, if you really do check, you know, the boxes on the checklist, and you really think that, then you take Adderall and it really helps you, then I think that, yeah, that that should be, you know, good enough to say, Yeah, you're benefiting from this medication, and, and, and it seems as if it's helping, you know, your life. But I I think that it's also probably good to combine that with talk therapy. But I say that to everyone. I think everyone should probably go to, you know, see a psychologist and work out some things, you know. But I think it all just goes into, you know, being a healthy, well-rounded, you know, person, and it's probably good to go and get all that out before you develop your sense of self when you're 30, I don't know.

**1:07:47 PI:** Absolutely.

## **Participant 2 Transcript**

**00:02 PI:** Okay, Alrighty, so tell me about how you arrived at your ADHD diagnosis.

**00:10 Vincent:** A long time ago. When I was in like middle school, my parents, took me to a neuropsychologist, or something like that, and he diagnosed me with it, and I kept going back to him for a while, and then eventually they put me on, like, medication.

**00:29 PI:** So this happened when you were younger, a lot younger?

**00:32 Vincent:** Yeah, pretty young, yeah, if not Middle School, like late Lower School.

**00: 36 PI:** Okay, so what were some of the things that gave it away, that prompted your parents to take you?

**00:43 Vincent:** I think it was academic performance, maybe, or since it was so long ago, it's hard to remember, but I remember probably comments from teachers, maybe my primary care doctor, or something like that. I'd have to ask them get the full details.

**00:58 PI:** Yeah, no worries. No worries. Tell me about a typical day at school, when you were in school, grad school.

**01:07 Vincent:** When I was in grad school, let's, let's see the first year. The first year I would you know, the first year was during covid, so a lot of it was zoom. Now we did have in class, like meetings, socially distance, of course, with, you know, lectures and stuff like that. And we had lessons that were socially distance, private lessons that were socially distance, masked, of course, and eventually going into middle of 2021 and then 2022 before I graduated, the masks, of course, faded their way out and started the social distancing. So it became more of a traditional environment. We still had large ensemble rehearsals and performances. Of course, socially distanced at first, and then as I went through school, they got rid of the social distancing. What else? Small ensemble was still

a thing since obviously that was easier to socially distance. So we had coachings. I was in the Graduate Student quartet and we had coaching we did recordings instead of live performances. So it wasn't too different. Honestly.

**02:26 PI:** That's good. If you had a preference in terms of in person or, you know, online, what would you prefer?

**02:35 Vincent:** For music, for performance? Definitely, in person, there's just no substituting it. Zoom. Quality is always, is obviously lacking. The personal connection and touch is always, is obviously lacking. I will say that recording our small ensemble performances and then being able to have that recording for later was pretty nice, but it's no substitute for performing for a live audience.

**03:00 PI:** Which would you say was, like, was one way more motivating than the other in terms of, like, getting you to practice, or...

**03:11 Vincent:** It's interesting. So being remote, I was able to practice right up until my lesson started, because I was just turning a camera on right? Which is a little bit convenient in a way, but obviously it made the lesson itself harder because of the Zoom quality on audio and video and stuff like that. I definitely prefer in person. I feel like the value that experience is more motivating to me. Plus, I think it becomes ingrained in you at some point to like hit the practice room before your lesson, you know, and it becomes habitual. So breaking that up with Zoom calls means that I had to actively push myself to start practicing, like, 32 minutes to an hour before the lesson to make sure I was warmed up and ready to go. And honestly, being remote is never motivating to do any work for me, because it's way too distracting with everything. I do relax at home, you know?

**4:06 PI:** Yeah. Describe to me some helpful teaching strategies your teacher has used in your lessons. Any strategies related to the ADHD.

**04:19 Vincent:** Interesting. So I think obviously positive and negative reinforcement are valuable teaching skills that I recognize. So like positive when you're feeling down, or when she (professor) when she notices that you're, like feeling stressed or anxious, or anything like positive reinforcement and then more constructive criticism, which I guess would fall under negative reinforcement when she (professor) could see that I'm giving my full effort and that I can and I just want to find out ways to improve, you know? So I think that kind of back and forth, that kind of adaptive strategy toward the student's mental state, uh, really helped motivate me to practice and get through the masters.

**5:06 PI:** Cool, um, describe any teaching strategies that you wish to see more of in your lessons to help with ADHD related issues.

**05:20 Vincent:** I don't know. So like, one thing that I think I've noticed over the years of having ADHD and being in private lessons is it's always easier for me to play in a lesson than to listen. Which obviously the main point of the lesson is to listen. But when the teacher is playing, I find it harder. I find it hard sometimes to focus on what specifically she's doing or what she's wanting me to watch about what she's doing.

**05:50 PI:** Interesting. Yeah. So is that like when the mind kind of drifts, or is it hard just to figure out what she wants you to focus on?

**05:59 Vincent:** A little bit of both. Honestly, depends on how long she's playing.

**06:03 PI:** Okay, is, do you find it? Is it? Is it difficult for you like to attend concerts, like live concerts?

**06:17 Vincent:** I think. And I'm not sure how this became the case, but I've never had a difficulty showing up for a call time. I always get into the ritual of like, shower an hour before, leave 30 minutes before, and I'm always checking my watch to make sure I'm in accordance with that schedule. And that may add some stress to my life, but it means that I'm on time for gigs and performances and stuff like that. I don't know

**06:48 PI:** I meant, like as an audience member, doing the listening.

**06:53 Vincent:** So that is something funny that I've actually noticed over time, is that sometimes, even if it's a piece I really enjoy, I will find my mind wandering, and I'm thinking about something besides the music that I've paid to see or whatever, and umm and I think I've come to terms with it as being like the music I'm subconsciously hearing, whether or not I'm actively listening to it is influencing what I'm thinking about, or the mood I'm in. So it's still worth, you know, attending.

**07:19 PI:** Absolutely, yeah, describe to me some helpful practice strategies that have helped you in the practice sessions. In your practice sessions.

**07:30 Vincent:** One of my main things I do to make sure that I do practice is leaving my case open so I can just pick up my instrument and go. That's because having it accessible like that is really helps me to start. And half the problem is just starting. A lot of the times I'll also break up anything monotonous, like skills, arpeggios, excerpts, or anything like that, with fun stuff to play that's satisfying, even if it's a passage of something I'm working on, being able to play it through and have that satisfaction of having fun with it. It dispersing into, like, dispersing that between the the less fun stuff.

**08:09 PI:** That's good. What are your experiences with hyper focus? In your practice sessions.

**08:16 Vincent:** Well, see that actually has led to some problems in the past. So, like, I'll either get hyperfocused on something like this used to happen to me with Bach, because, you know, Bach's very like, well, the way it's written is very structured, and it's very like, layered and stuff like that. And I really want to see it to my self-satisfaction. But the problem with that is it leads to some serious frustration and anger with like, repeated failure or repeated stuff like that. So it can actually go to an unhealthy level, and it's actually led to some, you know, muscle tension and soreness, which I was always afraid would lead to tendonitis and stuff.

**08:55 PI:** Yeah, um, tell me about a challenging day playing your instrument.

**09:02 Vincent:** Challenging day playing my instrument, like in grad school?

**09:06 PI:** Mm hmm.

**09:08 Vincent:** Well, I think the most challenging thing for me was making a mistake the very first piece of my master's recital, like it was the highest note, like the pinnacle of the first piece I was playing from memory, and I flubbed the note, and my finger slipped off the fingerboard, and I just had to recover from that. It caused several subsequent mistakes. But the challenging thing there was finishing the rest of the master's recital with a positive mindset and with focus.

**09:38 PI:** Oh, for sure. Have you experienced any challenging day, like, like a normal school day, playing your instrument?

**09:49 Vincent:** Let's see, obviously, in the practice room, there's always challenges that pop up, especially with ADHD. Like, if I have my phone in the practice room with me, it's always a challenge not to be checking it or notifications, or if I'm on there, like using the metronome to swipe out and go to a different app. So focusing on the actual music is always, usually a little bit of a struggle. The highlights are always when I'm playing with other musicians, I feel like the social interaction helps me focus.

**10:20 PI:** Mm hmm. Sure. At any in any of those challenging days, did you feel a temporary loss of motor control?

**10:32 Vincent:** Temporary loss of motor control? There...then, there has been times when I practice where, like, my fingers won't move the way I want them to, and I always just attributed that to not having the muscle memory built up yet. But like, especially in faster passages, more technically difficult passages, sometimes the hand just seizes up and it just stops playing. I've definitely noticed that before, but I never really thought about it.

**11:04 PI:** Have you ever returned to those passages without practicing for a while and then they just like, they're okay, you know?

**11:13 Vincent:** You I've found that, like the musicality improves, but that the technique suffers if I take a break, but um, but usually there is progress. Yeah.

**11: 25 PI:** Good, good. Um, describe to me some helpful strategies used by your conductor or chamber coach that have helped you. Any strategies related to ADHD.

**11:42 Vincent:** Well, as I said earlier, like I have the best time focusing, especially with a conductor when I'm actually playing and, like with other people. Because I don't know if it's because I'm, like, an extrovert or whatever, but I like, I feel like I can focus best when there are other people's expectations on me in the moment. I uh, let's see chamber coaches. I find that a chamber coaches focus too much on one instrument, or like a pair of instruments, and I have to sit there for a while honest, I can zone out, obviously, and I can miss valuable insight on what they're talking about there. Also, if there's too much mindless chatter from a conductor or a coach, they lose me there.

**12:33 PI:** Gotcha. And then your orchestral or chamber coachings um, if it's music that's not necessarily something you're interested in, is it you find it more difficult to focus?

**12:52 Vincent:** Well as a violist, a lot of the music's not strictly written for my instrument. A lot of it could be classified as boring. But I always remember, I think multiple teachers have actually told me this, but the first one was in my undergrad in Indiana, was that, make the part fun, even if it's just whole notes, even if it's a repetitive ostinato, make it fun do something interesting with it. So I'm always challenging myself to turn the most boring Viola part into something that I could have fun with.

**13:25 PI:** Gotcha. Describe some strategies you wish to see utilized by your conductor or chamber coach to help with some of those issues.

**13:41 Vincent:** Maybe rehearsing more the boring stuff that they don't think is as important. I mean, obviously they don't see that's the hard part, because the hard stuff, the fancy stuff, is usually what requires the most rehearsing, and that's where all the artistic expression comes from. But I feel like they could still gain artistic value, musicological value from rehearsing the boring ostinato, long tone stuff just to reinforce the foundations of the sound and the inner workings.

**14:10 PI:** So would you say the for them to kind of help you make it more interesting to see the value in your part in those sections...

**14:18 Vincent:** Yeah, perspective kind of thing.

**14:22 PI:** Definitely. Have you ever experienced performance anxiety as a graduate student? If so, tell me about one of those experiences.

**14:32 Vincent:** As a graduate student honestly, no. Most of that stuff I worked out in undergrad. By the time I was in my getting my masters. I had already been gigging a long time, gigging and doing performances. At that point, I view it as, if I have fun, the audience will have fun, kind of thing. And I think some of it's like, like putting away your shame, you know, for the performance. Like. Not hearing about wrong notes, just having fun with it.

**15:02 PI:** Yeah, definitely. Um, have you experienced any type of anxiety in your studio lessons, rehearsals or practice sessions? If so, tell me about those experiences.

**15:16 Vincent:** Definitely. If I can't play something that's being asked of me, like something, usually it's something technical, because obviously I can't practice it in the moment, so it's something that I'll have to file away for later, and I don't want to forget it. So that creates like anxiety to remember what was said to write it down. Remember, sure I write it down correctly, stuff like that. And also making sure that I'm behaving in rehearsal, that kind of thing.

**15:46 PI:** Gotcha. So the anxiety stems from remembering the stuff that they're asking you to do?

**15:57 Vincent:** Yeah, because I've always had trepidation when it comes to memory. Especially when it comes to memorizing music for like a graduate recital, having to memorize music...umm...because that's completely reliant on muscle memory. I'm a very visual learner, so having the sheet music is a very is a source of relief.

**16:17 PI:** Comfort?

**16:18 Vincent:** Yes.

**16:19 PI:** Cool, and you mentioned behaving yourself. So what kind of things do you do when I guess you misbehave?

**16:30 Vincent:** And I think it's a lot of joking around learning when like not to do that, because I don't know, just whenever I'm surrounded by musicians, I always get kind of giddy, because they're my people, you know. So I want to, like, you know, joke around and be jovial with them, you know, make sure that time too, even if, like, the music is being stressful, that they can have a laugh and all that.

**16:55 PI:** Okay.

**16:56 Vincent:** And sometimes that a little too far sometimes, like, I definitely had comments like from a section leader or from the conductor themselves, like, “Hey, we're all having fun here, but you need to turn it back here and there.”

**17:10 PI:** Do you know, like, when during the rehearsals, you tend to chat with your section a little bit more than other times. Like, what does that look like?

**17:25 Vincent:** Usually it's one of the conductors working with another section, and it leaves us time to just mope around or something like that. Or, you know, obviously I respect, like during a musical performance, I would never stuff like that, or like during a serious moment in the music. But anytime the conductor breaks to, like, work on something, it's usually when it happens.

**17:49 PI:** Yeah, and it's more chatting. Do you ever find yourself like needing to move around?

**17:56 Vincent:** I wouldn't say, move around. Sometimes I get fidgety with actually, I fidget a lot with the bow, the left hand is responsible just for holding the damn instrument so it doesn't doesn't fidget too much. Sometimes I get restless leg syndrome and I have to, like, stomp it or like, you know, shake it in place. But yeah, I wouldn't say there was overwhelming unless the chair is uncomfortable and they become, like, it starts becoming sore, like, if I'm not (inaudible) in this like, chair, that's just terrible. I am constantly shifting.

**18:30 PI:** Yeah, I understand it's, it's like, uh, and it doesn't go away. And you can't take your focus off of it.

**18:36 Vincent:** Now I will say, when I'm standing and playing, that's a different story. I'm always shifting my weight, like leaning backward and forward, and I'm always, I'm never static when I'm standing.

**18:48 PI:** So would you say it's a little easier to focus when you're standing?

**18:53 Vincent:** I would say I've never really thought about it, but I'd probably say it's about the same, because I do it unconsciously, or I maybe try, like, you know, adapt it to the music. What is that your Eurhythmics?

**19:06 PI:** (Nodding)

**19:06 Vincent:** Although I'm not doing anything.

**19:08 PI:** Gotcha, gotcha. Cool, cool. Have you experienced a situation as a graduate student where you believe ADHD has helped you? If so, describe that experience.

**19:25 Vincent:** I would say it helped me juggle. Because my second year of my master's, I was doing two master's degrees, one in music and one in nonprofit administration, and then the second year of my master's, I accepted a full-time job as a Research and Development Associate for a nonprofit. So it helps me juggle the two masters, the job and gigs I would I think, I think it helps me there.

**19:50 PI:** In what specific ways has it helped you juggle everything?

**19:54 Vincent:** I mean, I think it's part of the hyper focus. When I'm at a gig, I'm fully focused on the gig and when I'm at work, I'm fully I'm consumed by work. When I'm at school, I'm fully consumed by school, etc, etc. I think that's, I think that's an aspect of my hyper focus. And beyond that, yeah, I think that's the main reason, I think that benefited me.

**20:20 PI:** So, so it's sort of like the idea of, like the fast pace moving. You're kind of living in the moment here, and then you're moving here.

**20:30 Vincent:** Exactly.

**20:32 PI:** Would you say that maybe the challenge also was a little bit of a motivator, like putting that challenge in front of you.

**20:43 Vincent:** I think it was honestly a lack of thought. Really, it was more like accepting stuff as it happened, just taking up opportunities when I saw them, and then without really thinking about the consequences, because now I've had the doctors telling me that I have to worry about my heart rate from now on, and that I keep having these alerts over 120 for resting heart rate, and I can assume that's related to stress because of you know, all this stuff.

**21:13 PI:** Gotcha, is there anything else about your experience as a music performance graduate student with ADHD that you wish to tell me.

**21:31 Vincent:** I think the main challenge when it comes to being a performance graduate student is the class work. It's the non-performance related aspect of it.

**21:40 PI:** Yeah. So, like, was it the like, sitting in class, or was it doing the work outside of class?

**21:49 Vincent:** Doing the work outside of class definitely. Because I, I'm a habitual procrastinator, working to the last minute and stuff like that. And then focusing in class, obviously, especially when it came to, like theory,

**22:06 PI:** Oh.

**22:07 Vincent:** I'm not even sure if it was just specifically theory, but having to focus in any class. Depending on the teacher's style, I guess. I don't know.

**22:16 PI:** So you kind of zoom out, in and out.

**22:19 Vincent:** Very much so.

**22:21 PI:** Yeah, was there any subject that, at one point that just took your attention?

**22:30 Vincent:** I would say that really took my attention. I think theory is the opposite of that, especially like modern theory, with all the numbers and matrices and BS like, I'm not sure even how I got through that class. I think history is innately more interesting to me because it's storytelling, or at least if it's done right, it's storytelling. Classes...Anything to do with research actually, really took me, like, I'm not sure if it was because I was able to pursue research, I was interested in, and I could have a hyper focusing, you know, and then take advantage of that, or what. But I think research, if I was able to go back to school for a doctorate, it would be in research.

**22:21 PI:** Yeah.

**22:23 Vincent:** Which seems contrary to the whole like dryness thing.

**22:26 PI:** Yeah. So like, you know, at the end of the semester when the teacher said, "Okay, you can write this paper on any topic within this time period." That was your time to shine.

**22:38 Vincent:** Yeah, I really dove into that because I have a special interest in Ludomusicology, the musicological study of video games, music. And so I play a lot of video games. So what I did was I played some more video games, but I paid more attention to the music, and then did like, research, like that.

**23:57 PI:** Okay, so...

**23:59 Vincent:** And then get...yeah, got hyper, like, listening to the soundtracks on YouTube and taking, like, meticulous notes of like, when each theme was being used in the game and if it influenced gameplay at all, stuff like that,

**24:12 PI:** Interesting. So that's when theory didn't seem so boring, like when it was fun.

**24:20 Vincent:** I would say that that's less theory, because I don't know what chords they're playing. I don't know what they're doing, like theory, theoretically with it, it's more the methodology that I find fascinating.

**24:34 PI:** I see the story behind why they chose those chords.

**24:38 Vincent:** I don't even know what chords they're playing, and I don't, I'm super honest. I don't really care a lot of what I like, motivic analysis themes, you know, I don't know what, and I don't know what notes they're playing. I know, well, I guess when you look at it, it's pretty interesting, like whether they choose minor intervals or something, or how they quote other themes. And different keys and stuff. I just wish I was better at understanding the theory of it.