

## The Concept of Music Therapy In an Educational Setting

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## **Abstract**

Music therapy is generally used to treat children and adults who have a mental illness or disease. As research of this topic has increasingly grown throughout the years, the topic of teenagers fail to present itself as a focal point in many academic papers pertaining to music therapy. Specifically, I found that researchers rarely included the teenage population who have a mental illness or disease when addressing the topic of music therapy. In this paper, I evaluate the effects of music therapy on teenagers who may have trouble focusing while completing assignments in a classroom setting. In order to do so, I first assess current findings of music therapy on children and adults to get a grasp of how a teenager might show signs of ADHD-like tendencies. From there, I conduct a study designed to implement the ideas of music therapy on high school students.

## **Introduction**

### **Background**

The concept of enveloping music into therapy sessions has been around for decades. From as early as 1945, music has played an important role in therapy sessions. A monumental example can be found after World War II, where United States veterans would undergo rehabilitation therapy, with music therapy acting as a vital catalyst in receiving effective results for treating traumatic brain injuries, post traumatic stress disorder (PTSD), and other neurological disorders.<sup>1</sup> The events preceding 1945 shows a prominent example of the growth of music therapy's use being effectively implemented in the United States. The aftermath of WWII.

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<sup>1</sup> Lucille Foran, "Listening to Music: Helping Children Regulate Their Emotions and Improve Learning in the Classroom," *Educational Horizons* 88, no. 1, (Fall 2009): 51, <https://www.jstor.org/stable/42923786>.

As these war veterans returned home, there were some who had developed Post Traumatic Stress Disorder. According to psychiatry professor Jonathan Bisson in his paper titled “Post-Traumatic Stress Disorder,” he defines PTSD as a phenomenon that occurs after a traumatic event that involved actual or threatened death or serious injury.<sup>2</sup> Bisson further goes on in his paper to address common trauma focused psychological treatments, which include exposure therapy (repeated confrontation of traumatic memories and purposefully avoided situations), trauma focused cognitive therapy (Modification of misinterpretations and other beliefs that lead to overestimation of current threat), and eye movement desensitisation and reprocessing (using eye movements, taps, or tones while the patient focuses on memories and associations to stimulate information processing). However, the treatment of PTSD was done very differently on the WWII veterans.

Through extensive research, I came upon a War Department Technical Bulletin issued by the War Department in Washington D.C. in July of 1945. Its purpose of issue was “to set forth a program of music in reconditioning and to present methods and techniques of presentation of music to patients [residing] in Army hospitals.”<sup>3</sup> The bulletin goes on to discuss the benefits of this program, stating that “it is possible to increase... social and mental benefits through [soldiers’] interest in music,”<sup>4</sup> as the emotional appeal to some songs attributes to the beneficial outcomes music therapy can offer.

Since then, music therapy has developed to become a more prevalent concept in therapy, with an increased popularity of music therapy as an option of study in colleges across the United States.

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<sup>2</sup> Jonathan Bisson, "Post-traumatic Stress Disorder," *Occupational Medicine* 57, no. 6 (2007): 399-403.doi:10.1093/occmed/kqm069.

<sup>3</sup> War Department Technical Bulletin, “Music In Reconditioning In ASF Convalescent and General Hospitals,” (TB Med 187, Washington, D.C., 1945), 1.

<sup>4</sup>Ibid.

In current times, the use of music in therapy sessions is being focused to help with disorders such as attention deficit hyperactivity disorder (ADHD), anxiety, autism spectrum disorder (ASD) and alzheimer's. Of these topics of studies, researchers have examined how music can be of help to reduce the effects of these disorders in children, adults, and the elderly. Attention Deficit Hyperactivity Disorder, more commonly known as ADHD, has been a highly occurring diagnosis in children since the late 1900's due to parents becoming more aware of the disorder and doctors diagnosing it more efficiently. As of 2017, there have been multiple studies on how one could treat ADHD, from reading books for children to making them play outside. Although these studies have helped to improve one's overall well-being in the ADHD community, there are no studies that focus specifically on teenagers. In this paper, I question the ability of music therapy specifically, listening to music while completing a seemingly stressful assignment, to relieve the stress on teenagers who show similar indications of ADHD in a local Fayette County High School. The research presented will strive to target this gap.

## Literature Review

In order to accurately study the gap in music therapy, I researched the case studies of children, adults, and the elderly who had ADHD; focusing on how the disorder affected their day to day lives. Through their studies, researchers have found ways to help children and adults cope with ADHD. There have also been papers on personal accounts of how this disorder affected the lives of adults and the elderly. It has been found that the stress accompanied with ADHD added more stress to adults with the disorder. For the elderly, it has been found that due to ADHD, a

lack of social interaction would prove to be detrimental to their health. Overall, the older one is with ADHD, the more it affects one's emotional well-being.<sup>5</sup>

The same study was conducted on adults with ADHD. Although age is not defined in this study, one could imply that the term ranges from ages eighteen to forty-five. It was found that these adults would have a difficult time with schooling, as they would have problems with paying attention in a classroom setting. Contrastingly, adults living with ADHD have found that it does not interfere with their day-to-day lives. As there are different levels of ADHD, researchers found that some adults were more phased than others, but nothing too extreme to where it caused a problem within their personal lives. Dissimilarly, the authors of "Online Narratives by Adults With ADHD Who Were Diagnosed in Adulthood," Amos Fleischmann and Erez C Miller, stated that "diagnosing ADHD in adulthood is not a simple process."<sup>6</sup> They go on to explain that most doctors have a tendency of misdiagnosing these adults by mistaking a sign of a form of a psychiatric disorder with ADHD. Therefore, the misdiagnosis for ADHD is highly uncommon.<sup>7</sup>

Just as there are studies on how ADHD affects adults and elders, there are multiple studies on how the disorder affects children as well. More importantly, researchers have studied how ADHD affects the behaviors of a child. Just as ADHD affects older persons, it does the same to children. However, as younger brains are more susceptible to change than that of an adult's, it is much easier to teach them how to combat the symptoms that come with ADHD. Teachers across the United States are implementing tactics to teach preschool and elementary

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<sup>5</sup> Meryl Brod, Eva Schmitt, Marc Goodwin, Paul Hodgkins, Gwendolyn Niebler, "ADHD Burden of Illness in Older Adults: A Life Course Perspective," *Quality of Life Research* 21, no. 5 (2012): 798.

<sup>6</sup> Amos Fleischmann, Erez C. Miller, "Online Narratives by Adults With ADHD Who Were Diagnosed in Adulthood," *Learning Disability Quarterly* 36, no. 1 (2013): 48.

<sup>7</sup> Ibid.

school students how to keep their focus. Researchers Cindy Havington, Anila Ashgar, Shelly Sharp, and Josephine Nalbantoglu have researched just how beneficial embedding certain learning criteria specifically for ADHD can help a child learn how to live with the disorder. They used activities that could “improve [children’s] abilities through practice and repetition”<sup>8</sup> in the classroom after having the children assess their attention spans.

As teachers use lesson objectives to teach children how to retain their attention, some have also implemented the use of musical instruments. Researcher Kathleen Melago explains that children with ADHD and ADD tend to act fidgety and talkative in the classroom, which means that teachers need to keep them engaged and interested. The learning of music, through adaptation and modification, has proved to help. As every child with ADHD/ADD fall differently on the spectrum, requiring different needs for each student, instrumental teachers can provide the tools and lesson plans to develop “an environment that is conducive to learning for each individual student.”<sup>9</sup> Through having students learn how to play a musical instrument, Melago’s research presented a positive outcome within her experiment, as she concluded that children with ADHD tend to act fidgety and talkative in the classroom. However, having them focus on learning a musical instrument can enable an instructor to keep them engaged and interested. From this, she deduced that this use of music therapy overall decreased the children’s ADHD-like tendencies. This concept to “anticipate, create, and apply successful strategies”<sup>10</sup> can be applied outside of the classroom, providing students with the lifelong knowledge on how to

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<sup>8</sup> Cindy Havington, Anila Ashgar, Shelly Sharp, and Josephine Nalbantoglu, “How Does my Brain Pay Attention? A Series of Activities Teaches Students About Attention and What They Can do to Control It,” *Science and Children* 52, no. 6 (2015): 51.

<sup>9</sup> Kathleen Melago, “Strategies for Successfully Teaching Students with ADD or ADHD in Instrumental Lessons,” *Music Educators Journal* 101, no. 2 (2014): 43.

<sup>10</sup> Ibid.

live with their ADHD/ADD. However, this is just the beginning. Although many other researchers have conducted studies on the role of music learning -more specifically music therapy- and its outcomes on children with ADHD, there is limited information on how music therapy affects the teenage population who have or experience ADHD-like tendencies.

## Definitions

As this paper explores music therapy and its effects on teenagers who show indications of ADHD, some keywords need to be clearly defined. Attention Deficit Hyperactivity Disorder (ADHD) occurs when there is an imbalance of neurotransmitters in the brain. Therefore, the disorder can affect one's ability to keep focus and self-control. Although there is little information on how ADHD affects teenagers (ages fifteen to eighteen), it can be implied that they deal with the same symptoms children go through; getting easily distracted, quickly losing interest in certain activities, and the difficulty of retaining information. However, the academic expectations for teenagers increase substantially once they enter high school, making it more difficult for teens combating this disorder to keep up with their peers academically. This is where music therapy comes into play. Music therapy, in this paper, is defined by the American Music Therapy Association as "the clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program."<sup>11</sup> The goals of music therapy, also defined by the American Music Therapy Association, are to promote wellness, manage stress, alleviate pain, express feelings, enhance memory, improve communication, and promote

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<sup>11</sup> American Music Therapy Association, "What is Music Therapy?," About Music Therapy and AMTA, American Music Therapy Association, 2018, <https://www.musictherapy.org>.

physical rehabilitation.<sup>12</sup> Of course, this paper will be focusing on the management of stress aspect of music therapy. Within music therapy, the music used throughout most sessions fall under the category of classical. This genre is widely used, as it is the genre that is generally incorporated into music therapy to help calm and soothe patients who have withstood traumatic injuries or past experiences.<sup>13</sup> The melodic tones heard in classical pieces prove to be more soothing to patients who have ADHD, or any other mental disorder. This sensation of calmness that classical music provides to patients helps them to relax and channel their stress elsewhere. Contrastingly, complex chord structuring that can be found in other genres of music (such as rock, pop, rap, etc.) can become a burden to those patients if used in music therapy, as those genres of music are generally used to make the listener excited and energized. In my study, stress is referring to the level of difficulty in completing homework, mainly in an English class.

### **Methods**

As my topic of inquiry focuses on the effects of music therapy and the behaviors of teenagers, I chose to conduct an observational study, as this method would be the most ideal. Using this form of data collection would be preferred due to music therapy focusing on treating a wide range of needs and disabilities that would help those who have ADHD-like tendencies. More specifically, conducting an observational study will help me, as an observer, to detect students who portray traits one with ADHD might have. Again, these traits include getting easily distracted, quickly losing interest in certain activities, and difficulty retaining information.

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<sup>12</sup> Ibid.

<sup>13</sup> Stacie Beavers, "Music Therapy." *The American Journal of Nursing*. Lippincott Williams and Wilkins, 1969.



Originally, I planned to send out a survey via Google Forms to the student body of a local high school in Fayetteville, GA to inquire information on their interest in participating in my study. In addition to this, I planned on asking if they have been diagnosed with ADHD from a psychologist, psychiatrist, and/or neurologist. However, as it is unethical to ask minors if they suffer from ADHD, I had to redesign my study. I chose to conduct an observational study accompanied by a survey rather than conduct surveys alone. After gaining consent from a Fayette County english teacher, I sat in on an eleventh grade-leveled American Literature class that contained a total of twenty two students, in which I gained consent from seven students total. Of the twenty two students, only seven filled out and turned in an informed consent form that was given to them a day prior to the first day of my study. These seven students were the ones who would be observed. While the students settled into their seats and watched the morning announcements on the first day of observation, I created a seating chart of the classroom in which I numbered off the students in replace of their names to maintain confidentiality. During both studies, the students were assigned to complete a timed right in which they are required to type a one paragraph timed write; writing the beginning of a story in 3rd person in the span of forty to forty-five minutes.

As the first day acted as my control group, students who were partaking in the study were asked to work on their assignment without listening to their music. The second day acted as my experimental group. The students continued to work on their assignments from the day before, however, they were asked to listen to music while doing so. I chose to let the students choose any genre of music to listen to while working, as I assumed they would know what music best helps them to keep focus. As students completed their timed writes, they were then asked to pick up

and fill out a survey that I created. This survey asked the participants questions on how they felt about completing their work over the past two days, as I wanted to see if them listening to music posed any differences on their work ethic. A list of these questions can be seen in figure 1.1.

Fig 1.1	Do you have trouble with paying attention in your classes on a day to day basis?	Do you tend to take longer completing assignments when doing them on your own?	Do you feel like you completed your timed write to the best of your ability?	Would you say that you worked better yesterday, without music, or today, with music?	Would you say that you got more done yesterday, without music, or today, with music?
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### Findings

Fig 2.1	Do you have trouble with paying attention in your classes on a day to	Do you tend to take longer completing assignments when doing them on your	Do you feel like you completed your timed write to the best of your	Would you say that you worked better yesterday, without music, or	Would you say that you got more done yesterday, without
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	day basis?	own?	ability?	today, with music?	music, or today, with music?
Student 1	Sometimes	No	Yes	Today with music	Today with music
Student 2	Sometimes	All the time	No	About the same	Today with music
Student 3	Sometimes	Almost never	Somewhat	Today with music	Today with music
Student 4	Sometimes	Most times	Somewhat	Today with music	Today with music
Student 5	Sometimes	Most times	No	Today with music	Today with Music
Student 6	Sometimes	Sometimes	Somewhat	Today with music	Today with music

On the first day, it could be seen that the participants within the control group showed signs of ADHD-like tendencies. All students, whether participating or not, found it difficult to focus on their assignment, and continuously distracted other classmates; whether accidentally or purposefully. In contrast, the demeanor of the experimental group showed improvement of focus

among both the participants and their classmates. On the second and last day of my study, the participants were asked to complete and turn in their surveys before leaving for their next class.

As seen in figure 2.2, of the six students, two replied that they listen to chill instrumental music while three replied that they listen to upbeat music -the other student did not respond. Out of the seven students who participated, one participant failed to complete the survey. However, this did not drastically affect my results. After assessing the responses of the surveys, taking in account of my observations, I found that all participants found that listening to music is a good way for them to be a more diligent worker. When asked the question “Do you tend to work best with music? Explain why or why not.”, all participants responded with a yes, explaining that music helps them to take away outside distractions so that they can better focus on their assignment. The participants appeared to be more attentive to their assignment, and limited their talking amongst their peers. Overall, the participants in the control group were more rowdy and prone to talk amongst themselves, whereas the participants in the experimental group were more quiet and attentive to completing their assignment.

Fig 2.2	Do you tend to work best with music? Explain why or why not.	If you answered yes to the previous question, what genre of music do you tend to gravitate towards when completing assignments?
Student 1	Student did not respond.	<ul style="list-style-type: none"> <li>Student did not respond.</li> </ul>

Student 2	“I believe I do because I’m able to focus more.”	<ul style="list-style-type: none"> <li>• Chill, instrumental music (ie: guitar, piano, violin, etc.) with no vocals.</li> </ul>
Student 3	“Yes, because I do not hear what is going on around me to get off topic. I just focus better.”	<ul style="list-style-type: none"> <li>• Chill, instrumental music (ie: guitar, piano, violin, etc.) with and without vocals.</li> </ul>
Student 4	“Yes it helps me focus better since it take[s] away other distractions and helps me zone into the assignment.”	<ul style="list-style-type: none"> <li>• Upbeat music with a lot of bass and vocals</li> <li>• Upbeat, techno music with a lot of bass &amp; no vocals.</li> </ul>
Student 5	“Yes, because when people are talking I want to be apart of the conversation but the music ‘toons’ out everything.”	<ul style="list-style-type: none"> <li>• Upbeat music with a lot of bass and vocals.</li> </ul>
Student 6	“Yes because it helps me	<ul style="list-style-type: none"> <li>• Upbeat music with a</li> </ul>

	zone in.”	lot of bass and vocals
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### Analysis

Unfortunately, my hypothesis did not coincide with my data. I hypothesized that if students listen to music while completing homework, then they would be able to better focus while completing assignments in a classroom setting. As seen from my data, my findings did not support this idea. It appeared that letting the students listen to music while completing their timed write had little to no effect on the focus of the students. However, almost all of the students claimed that they believed listening to music while completing assignments helps them to focus by blocking out any outside distractions. This contradiction can be easily justified. As I have discovered in my research, traditional music therapists gravitate towards using classical music. However, I allowed the participants to listen to music of their liking. After analyzing my data, it is clear why licensed music therapists gravitate towards using classical music over other genres of music. The melodic tones heard in classical pieces prove to be more soothing to patients who have ADHD, or any other mental disorder. This sensation of calmness that classical music provides to patients helps them to calm down and channel their focus elsewhere. Contrastingly, complex chord structuring that can be found in other genres of music (such as rock, pop, rap, etc.) can become a burden to those patients if used in music therapy, as those genres of music are generally used to make the listener excited and energized. Looking back at my observational study, the participants felt that music helped them to focus, however this could not have necessarily meant that they focused on the right things. Instead of the participants becoming more focused on the task at hand, they instead were more drawn to the song that was

currently playing from their phones. However, one concept that was mentioned in my Literature Review did prove to be true: that the older one is with ADHD, the more it affects one's emotional well-being. In my study, although it can not be said that anyone has ADHD, this is evident in not only the participants but most of the twenty two students in the classroom. On multiple occasions, students who were not participating in the study would consistently get distracted by their surroundings. Examples of this are students turning to their seat partner or around in their desk to talk with participants and other students, fidgeting their leg, blankly staring at their computer screen, and constantly repositioning themselves in their seats.

Additionally, the demeanor of the participants played a significant role in the outcome of my study. As high school presents an opportunity for students to become more socially active, it can be said that a majority of those students carry that need to socialize into the classroom. While others talked on topics pertaining to the assignment towards the beginning of the study, throughout my study, most of the students conversed with one another. Although the instructor informed the students to stay quiet, read, and complete their assignment, they seemed to have trouble keeping focus. It can be seen that the students who found it difficult to focus distracted other classmates; whether accidentally or purposefully. Overall, the demeanor of the classroom was drastically different between the control and experimental days. The participants during the controlled study were more rowdy, whereas the participants during the experimental study were more quiet.

## Limitations

After analyzing the responses of the surveys the participants filled out, it can be seen that listening to music can, to an extent, help with student's overall focus in a classroom setting. Almost all of the participants responses clearly showed that music had little to no effect on their work ethic. This could be due to my methods. Although I observed seven students out of the twenty two in the classroom, only six completely filled out the survey that was distributed at the end of the second day of my observational study. As a result from this, along with other limitations, the results from my study did not turn out the way it was intended. An example of this can be seen in the chart of the student's responses in figure 2.1. Although five out of the six students confirmed that they felt more focused during the experimental study, with one student saying they had the same amount of focus during both days, only one student was certain that they completed their assignment to the best of their ability when asked the question "Do you feel like you completed your timed write to the best of your ability?" The other participants replied with either "somewhat" or "no".

The layout of the classroom also posed both benefits and limitations to my study. As the desks were facing me, and I was in front of the classroom standing behind a podium, I had a good view of the participant's facial expressions as well as their body language. However, I could not see what exactly the students were typing through the study, which made it difficult to gauge if the students were working or procrastinating by doing things on their Chromebook other than their assignment. As the students were given two days to complete said assignment, they may have been tempted to slack off on the first day, as they were informed of the extra day they



were given to complete the timed write. Additionally, towards the end of the experimental portion of my study, one participant failed filled out a survey completely, while another participant failed to fill out the entirety of the survey.

### **Conclusion**

Although my hypothesis was not supported by my study, I believe that my research can act as a catalyst on aiding high school teenagers who experience ADHD-like tendencies in a classroom setting. My findings on the effectiveness of music therapy on teenagers can prove to be beneficial to middle and lower class parents who may not have the funds to buy their child medication for their ADHD. Teenagers will benefit as well, as they would have the knowledge of how music therapy helped them in bettering their attentiveness in the classroom, thus improving their grades and education throughout their high school career. As for the field of music therapy itself, I feel that my findings could open up research on a rarely discussed group of individuals.

For future research, one could refine my study in order to continue expansion on my topic of inquiry. As the representation of the participants of my study was limited, I would suggest observing a broader age range of high school students, in order to strengthen the validity of the study. The main problem that appears to be prominent throughout the study was the level of free-will given to the participants on the second day of the study. By doing so, one can suggest that the participants might not have chosen ideal music to help them stay focused and complete their assignment. Future researchers can avoid this by specifying to the participants of the types of music they are allowed to listen to during the study. Personally, I would highly suggest restricting the genre of music for the experimental group to classical music, or any genre of music that is, in definition, relaxing and/or soothing. Moreover, the demeanor of the classroom

as a whole posed as an error in my study, as the non-participants disrupted the participants by conversing with one another. Conducting the study in a more controlled setting to remove possible distractions could be a possible solution to this error. This can be done by having only the participants in the room during the study. Additionally, when observing the participants, I did not have access to their papers; nor was I able to observe their computer screens to closely assess their work ethic on both days.

Nonetheless, this research can, potentially, act as a catalyst in filling the gap in music therapy relating to teenagers who show signs of ADHD-like tendencies. Though some researchers have conducted studies on the behaviors of teenagers, these works are uncommon. More distinctly, a minimal amount of research has been conducted on how music therapy can assist with minor problems, such as improving the work ethic of high school teenagers. Filling this gap could help these students who struggle with keeping focused in class or outside of school to complete their assignments more efficiently. This increased work ethic could also bleed into their lives after high school. Future college students would have already grasped a method of completing homework in a labor-saving way. Furthermore, filling this gap could help with students who plan on obtaining a job, as they would have the knowledge of how music therapy helped them in bettering their attentiveness in the classroom, thus improving their grades and education throughout their high school career.

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