

Effects of Music on Health and Academic Performance: A Literature Review

Grace Smalley

Longwood University

Effects of Music on Health and Academic Performance

Introduction

Classical music is one of the most underrated genres of music. It has the power to change or diminish feelings of anxiety and even positively affect academic performance, yet the people who need to listen to it the most hardly know it exists. Transitioning to college is a very stressful occasion. The soon-to-be college students have to move all of their belongings into a very little room, eat new food, and make new friends—especially their roommate. These activities combined are very nerve-racking. Even more demanding is that they are expected to do this for approximately four years of their life and have to manage to get good grades in the process. Therefore, listening to classical music would help many college students succeed in school by reducing their reactions to stress as well as improving their grades.

How Music Affects the Health of College Student

Listening to music has many positive effects on the body and its ability to function. An experiment, done by Khalfa, Bella, Roy, Peretz, & Lupien in 2006, concluded that music can decrease the stress hormone, cortisol. To perform this study, the experimental and control groups were given tasks specifically meant to increase cortisol levels. After this task, the experimental group listened to classical music while the control group waited in silence. During this “recovery phase,” the control group’s cortisol levels increased while the experimental group’s cortisol levels stayed the same. This means that the presence of music essentially decreased cortisol levels since they would have increased in the absence of music. Another study was conducted by Jensen (2001). Not only did Jensen confirm that cortisol levels decrease while listening to music, but he also defined other responses. He stated that the vibrations produced by music also lower the heart rate and IgA levels, which has a positive effect on the immune system. The author

provides an overall comment about how music alters the body: “Music affects digestion, internal secretions, circulation, nutrition, respiration, and the immune system via . . . vibrations” (Jensen, 2001, p. 38). This means that music can do more than affect the brain; it can affect the whole body. A more interesting discovery was that sound level affects heart rate as well; “relaxant baroque and excitatory heavy metal music slightly decrease global heart rate variability because of the equivalent sound level” (Roque, Valenti, Guida, Campos, Knap, Vanderlei, Ferreira, Ferreira, & de Abreu, 2013). This means that the body could get the same responses from listening to heavy metal as they do while listening to relaxing music; however, it does not positively affect the response to stress much, so classical music is still the more efficient path to take. Playing music has a much wider variety of positive responses on the body. One study, conducted by Chen, Chen, Ho, & Lee (2019) verified that music has the ability to lower cortisol levels. It also determined that music therapy helps with depression in adolescents with severe depression.

How Music Affects Academic Performance in College Students

Listening to music has also been proven to positively affect academic performance. In fact, it is highly likely that it improves concentration because of its effect on the human stress response. Music allows students to focus more on academics rather than how stressed they are feeling because it lowers cortisol levels and decreases heart rate. This, in response, has a positive effect on students’ academic career. Listening to music also directly affects academic performance. A study conducted by Antony, Priya, and Gayathri (2018) proved that listening to music while studying has a positive effect on academic performance. They conducted this experiment by surveying students on their opinions about how listening to music impacts the efficiency of their studying and academic performance. Another study done by Philip Yang (2015) also confirmed that listening to music affects academic performance.

However, one source goes in detail about how the body responds exactly. Jensen, in his book *Arts with the Brain in Mind*, mentions several ways that playing music helps can improve academic performance. Firstly, some of his research concluded that playing music can allow one to become a more logical thinker. In addition to this, Jensen found that playing the piano increases math skills because its use of “spatial awareness plus the ability to think ahead” (2001, p. 22). However, it is not just math that is improved by playing musical instruments. Another work that Jensen researched showed that “reading, history, geography, and even social skills increased by 40 percent” (2001, p. 23). Then, Jensen mentions research concerning the Mozart effect, that concludes that students listening to Mozart for 10 minutes performed better on spatial tests than those listening to white noise or nothing (2001, p. 25).

Conclusion

Classical music has many beneficial purposes. It can reduce stress, and it is able to improve academic performance in many cases. Listening to classical music, or even playing it, can have a positive effect on those transitioning to college. College includes many stressors like living in enclosed areas, eating different food, and meeting new people everywhere they go. In addition to this, college introduces more difficult classes and curriculum, so listening to music would help the college student get better grades as well.

References

- Antony, M., Priya, V. V., & Gayathri, R. (2018, May 28). Effect of music on academic performance of college students. *Drug Invention Today*, 10(8). Retrieved from <https://login.proxy.longwood.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=131602207&site=ehost-live&scope=site>.
- Jensen, E. (2001). *Arts with the Brain in Mind*. Retrieved from <https://ebookcentral.proquest.com/lib/longwood/reader.action?docID=3002068>.
- Khalifa, S., Bella, S. D., Roy M., Peretz, I., & Lupien S. J. (2006, January 24). Effects of relaxing music on salivary cortisol level after psychological stress. *The Neurosciences and Music*, 999(1), 374-376. <https://doi.org/10.1196/annals.1284.045>.
- Roque, A. L., Valenti, V. E., Guida, H. L., Campos, M. F., Knap, A., Vanderlei, L. C. M., Ferreira L. L., Ferreira, C. & de Abreu, L. C. (2013, July). The effects of auditory stimulation with music on heart rate variability in healthy women. *Clinics (Sao Paulo)*, 68(7), 960–967. doi: 10.6061/clinics/2013(07)12
- Thoma, M. V., La Marca, R., Brönnimann, R., Finkel, L., Ehlert, U., & Nater, U. M. (2013, August 5) The effect of music on the human stress response. *PLOS ONE*. <https://doi.org/10.1371/journal.pone.0070156>.
- Yang, P. (2015, February 15). The impact of music on educational attainment. *Journal of Cultural Economics*, 39(4), 369–396. <http://dx.doi.org/10.1007/s10824-015-9240-y>.