

# Increasing Accessibility in Playing String Instruments: Practical Solutions for Music Educators

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## Abstract

*Accessibility in music continues to be of concern to musicians around the world. Musicians tend to experience discomfort, defined as anything that creates tension or strain, when playing instruments of the modern violin family (violin, viola, cello, and double bass). When teaching students, music educators need to be equipped with strategies to combat short-term and long-term discomfort and tension. Recent studies propose new solutions to alleviating such issues, including prosthetics, biofeedback therapy, mindfulness, and yoga. This project aims to identify the most practical solutions to relieve string instrument discomfort. Using the oral history methodology, 5 music educators and a music student were interviewed to share their experiences of discomfort or injuries while playing the string instrument. These interviews have revealed that connective therapy solutions are effective at preventing and overcoming discomfort and further exploration of these solutions is warranted. The culmination of this research and the collected authentic experiences can function as educational tools to identify, combat, and prevent discomfort for musicians. Equipped with this knowledge, educators will increase the accessibility of playing string instruments and prevent discomfort from becoming a developed issue.*

## Introduction

Musicians tend to experience physical discomfort, defined as anything that creates tension or strain, when playing instruments of the modern violin family (violin, viola, cello, and double bass). Musicians who practice and perform with instruments of the modern violin family are especially prone to experience discomfort and development of hand conditions due to overuse and improper playing technique. The methodology of oral history interviewing can reveal valuable solutions

discovered by musicians who have directly experienced discomfort while playing these instruments. The decline in support for orchestral/string programs in public schools can be linked to the discouraging nature of how many students are taught to play the instruments, which is of major concern to music educators and enthusiasts who promote the value of string instrument learning, however, innovative solutions exist that can relieve discomfort in string players and aid in the expansion of string instrument accessibility.

## **Methodology**

In pursuit of practical solutions for music educators to utilize for relieving discomfort, data has been collected through five oral history interviews with musicians who have experienced prolonged discomfort from playing string instruments: Deirdre Edgell, a youth orchestra director and private violin teacher, Peter and Jane Brye, retired private string teachers, Michael Vitale, instructor of bass and strings at Millersville University, Vera Volchansky, associate professor of strings and director of orchestras at Millersville University, and Annelise Lorentzen, current music student studying at Millersville University. These musicians were divided into three categories of musicians who have experienced discomfort and injury from playing string instruments: educators, performers, and students. All interviewees shared their musical backgrounds, stories about how they developed their injuries, and the solutions they have found that have helped them continue to pursue their passion for playing music.

## **Findings**

The culmination of the oral history interviews revealed common themes among the musicians who shared their experiences. Every musician interviewed suffers from an injury developed through playing string instruments. Additionally, they all advocate for connective therapy solutions involving yoga, Pilates, and mind-body exercises to be utilized by string instrument players, and tout connective solutions as the most effective, especially in combination with physical therapy solutions like stretching. These range from yoga and mindfulness activities such as meditation that allow the musician to become more cognizant of how they are using their fingers, and how that connects to their use of the wrist, the forearm, the shoulders, and all throughout

the body. Lastly, all musicians interviewed shared a strong desire for music educators to become more aware of the potential for students to develop hand conditions and injuries from improper technique and believe that it is up to the music educator to discuss and advocate for this cause with their students.

## **Discussion**

Discouragement from playing string instruments is reinforced by stress levels of students and their perceived discomfort, as researchers Joshua A. Russell and Rachel L. Benedetto write in the conclusion of their study, “some students might be generally prone to stress and therefore more apt to experience discomfort as their body reacts to stress with increased physical tension” (Page 272). Solutions for alleviating discomfort proposed by music educators and musicians alike have traditionally involved simple physical therapy exercises such as hand stretches and taking frequent breaks from playing the instrument. Thankfully, recent studies propose new solutions for alleviating such issues, including biofeedback therapy, mindfulness, and yoga.

Biofeedback therapy utilizes the measurement of electrical activity in muscles with a machine called a myograph to quantitatively evaluate pressure. Research conducted by music professor, Jeffrey K. Irvine and psychiatric professor, William R. LeVine suggest that “the use of biofeedback techniques as an aid to string players is neither a magical nor a revolutionary new concept; rather, it is the application of modern medical technology to help string players reach what most would admit being a common goal: relaxed, tension-free technique” (Page 12). The practice of Pilates was recently incorporated into a study aimed at reducing discomfort and improving posture of children who play string instruments, to which Carolina

Poncela-Skupien documents, “if they start with postural reeducation within the therapeutic activity, such as the Pilates method combined with therapeutic exercise, this protocol could reduce pain before and after playing the instrument, as shown in this study, with statistically significant changes” (Page 13).

### **Conclusion**

When teaching students, music educators need to be equipped with strategies to combat short-term and long-term discomfort and tension. Music educators should incorporate connective therapy solutions in their classrooms such as Pilates, mindfulness activities, and explore biofeedback to effectively teach their students how to monitor their own

discomfort while playing. Additionally, music educators should be diligent when teaching string players how to properly use their left hand for finger placements and pressure without any excess tension – attention to detail with technique can save students from developing issues later. Implications for future research suggest that these methods have greater potential than what is currently understood by researchers and the lived experiences of those who’ve endured discomfort in the past.

## References

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