P88: Influence of a specific xxercise program ni violin studentsS

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Introduction: The high prevalence of performance-related musculoskeletal disorders in university music students, especially violinists, justifies a preventive approach among these, namely, through exercise.

Objectives: to verify the influence of a specific exercise program (SEP) on violin performance-related symptoms, functional disability and self-perception of physical and musical performance, in university violin students.

Materials and Methods: quasi-experimental study with 22 violin students from a School in Oporto divided, by availability, between experimental group (EG) (n=11) and control group (CG) (n=11). During 8 weeks, EG performed the SEP bi-weekly. At baseline and after 8 weeks, participants completed the Performance Questionnaire (included Visual Analogue Scale), the Disabilities of the Arm, Shoulder and Hand, the Oswestry Disability Index version 2.0, the Pain Catastrophizing Scale and the Modified Borg Scale.

Results and Discussion: At the end of the SEP, EG had significantly better scores than the CG in the percentage of violinists with "pain in the left lumbar spine" (p=0.007), frequency of pain (U=8.5; W=29.5; p=0.016) and number of locations with symptoms (U=18; W=84; p=0.003). The hypoalgesic effect of exercise and the great number of lumbar stabilization exercises of the SEP may explain these results. EG also had better results in pain magnification (U=26; W=92; p=0.021), suggesting that the SEP decreases the perceived threat caused by pain.

Conclusion: A SEP can produce positive effects on reduction of violin performance-related symptoms and functional disability, and improvement of some parameters of self-reported physical performance in university violin students.

References

1. Barton, R., Killian, C., Bushee, M., Callen, J., Cupp, T., Ochs, B., Sharp, M., & Tetrault, K. (2008). Occupational performance issues and predictors of dysfunction in college instrumentalists. *Medical Problems of Performing Artists, 23*(2), 72-78.
2. Wilke, C., Priebus, J., Biallas, B., & Froböse, I. (2011). Motor Activity as a Way of Preventing Musculoskeletal Problems in String Musicians. *Medical Problems of Performing Artists, 26*(1), 24-29.