

# Effect of external voice vibration therapy on singers following strenuous singing: A randomized trial



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## Introduction

External voice vibration therapy (EVVT) has been widely used to relieve chronic pain conditions, for musculoskeletal rehabilitation and athletic training. It has become popular on social media with the suggestion that it can enhance vocal performance and aid recovery from vocal fatigue. However, there is little evidence to date to support these claims. Ley developed a Vibrant Voice Technique and proposed that EVVT might reduce muscle tension and improve range and projection in singers. A previous trial by Anderson (2018) et al, used a relatively small cohort, only 27 female participants between the ages of 18-50, and the findings were inconclusive.

## Research design

This trial has over 60 participants, both male and female, between the ages of 18-76. Prior to the data collection session all participants underwent a nasendoscopy examination at Lewisham voice clinic. This was to rule out the possibility of any vocal pathologies amongst the participants. The participants were randomly allocated into two groups. Data collection took place at UCL, department of music education, in London and Oak House Music Room near Oxford. Data collection occurred throughout the autumn 2019 and will continue into spring 2020.

The trial adhered to BERA ethics guidelines and all the participants provided written informed consent for enrolment in the study.

## Interventions

Within six months either prior to or following the data collection session, each participant was examined at the Lewisham Voice clinic and the possibility of any vocal pathology was excluded.

Participants met in groups of a maximum of 8 per session. First they were asked to read the phonetically-balanced passage 'the northwind and the sun'. Whilst they read this passage, acoustic measurements were taken with an electrograph and measurements for jitter, shimmer and pitch range were noted. Each participant completed a questionnaire giving a subjective rating according to the Singers Voice Handicap Index, (sVHI) and the vocal discomfort scale (VDS).

Following this, the participants engaged in a strenuous singing session which commenced with a ten minute vocal warm up and was followed with 50 minutes group singing of familiar repertoire. Prior to singing the participants were asked to sing in their normal vocal style. The repertoire chosen was familiar music that could be sung in a variety of vocal styles.

After the singing session, the acoustic parameters were again measured, and they completed for a second time the VDS. The singers then split into their randomly selected group. Group 1 did a traditional vocal cooldown with sirening and humming. Group two self-administered vibrational therapy, under the instruction of one of the researchers.

Finally, all the voice assessment parameters were measured for a third time including the VDS.

This trial is ongoing and will be completed in spring 2020. Initial findings will be presented at the British Voice Association event 'Tension Release' on 22nd Feb 2020.

