SHORT-TERM EFFECT OF TWO SEMI-OCCLUDED VOCAL TRACT TRAINING PROGRAMS ON THE VOCAL QUALITY OF FUTURE OCCUPATIONAL VOICE USERS: "RESONANT VOICE TRAINING USING NASAL CONSONANTS" VERSUS "STRAW PHONATION"

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Purpose. The purpose of this study was to determine the short-term effect of two semi-occluded vocal tract (SOVT) training programs "resonant voice training using nasal consonants" versus "straw phonation" on the vocal quality of vocally healthy future occupational voice users.

Methods. A multigroup pretest-posttest design was used. Thirty healthy speech-language pathology students with a mean age of 19 years (range: 17-22 yrs.) were randomly assigned into a resonant voice training group (practicing resonant exercises across 6 weeks, n=10), a straw phonation group (practicing straw phonation across 6 weeks, n=10), and a control group (receiving no voice training, n=10). A voice assessment protocol consisting of both subjective (questionnaire, subject's self-report, auditory-perceptual evaluation) and objective (maximum performance task, aerodynamic assessment, acoustic analysis, voice range profile, acoustic voice quality index, dysphonia severity index) measurements and determinations was used to evaluate the participants' voice pre- and post-training. Groups were compared over time using linear mixed models and generalized linear mixed models. Within-group effects of time were determined using post-hoc pairwise comparisons.

Results. No significant time-by-group interactions were found for any of the outcome measures, indicating no differences in evolution over time among the three groups. More in-depth within-group analyses showed a significant improvement in dysphonia severity index in the resonant voice training group, and a significant improvement in the intensity range in the straw phonation group.

Conclusions. Results suggest that the SOVT training programs resonant voice training and straw phonation may have a positive impact on the vocal quality and vocal capacities of future occupational voice users. The resonant voice training caused an improved dysphonia severity index, and the straw phonation training caused an expansion of the intensity range in this population.