EFFECT OF TWO ISOLATED VOCAL FACILITATING TECHNIQUES GLOTTAL FRY AND YAWN-SIGH ON THE PHONATION OF FEMALE SPEECH-LANGUAGE PATHOLOGY STUDENTS: A PILOT STUDY

I. Meerschman¹, E. D'haeseleer¹, B. Ruigrok¹, T.Catry¹, S. Claeys², K. Van Lierde^{1,3}

¹ Department of Speech Language and Hearing Sciences, Ghent University, Belgium

² Department of Otorhinolaryngology, Ghent University, Belgium

³ Department of Speech-Language Pathology and Audiology, University of Pretoria, South Africa

iris.meerschman@ugent.be; evelien.dhaeseleer@ugent.be; sem.claeys@ugent.be; kristiane.vanlierde@ugent.be

Objective. The purpose of this study was to determine the effect of two isolated vocal facilitating techniques, glottal fry and yawn-sigh, on the phonation of vocally healthy female speech-language pathology (SLP) students. Study design.

Methods. A multigroup pretest-posttest design was used. Thirty-six healthy female SLP students with a mean age of 18.1 years were assigned into three groups: a glottal fry group (practicing the facilitating technique glottal fry across 18 weeks, n = 12), a yawn-sigh group (practicing the facilitating technique yawn-sigh across 18 weeks, n = 12) and a control group (receiving no facilitating techniques, n = 12). To compare vocal measures before and after this training period, an identical objective voice assessment protocol (maximum performance task, acoustic analysis, voice range profile and Dysphonia Severity Index) was performed in the three groups. Groups were compared over time using linear mixed models. Withingroup effects of time were determined using post-hoc pairwise comparisons.

Results. Glottal fry resulted in a significant decrease in lowest and highest intensity. Yawn-sigh resulted in a significant increase in fundamental frequency, a significant decrease in shimmer and noise-to-harmonic ratio, and a significant increase in highest intensity.

Conclusions. Yawn-sigh may have a positive effect on the phonation of female vocally healthy future SLPs, whereas results are less supportive for using glottal fry in training this population's voice.