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ACOUSTIC MEASURES OF THE VOICES OF OLDER SINGERS AND
NON-SINGERS
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ABSTRACT

The present study sought to investigate whether there were differences in the acoustic measures of fundamental frequency (Fo), jitter, intensity and shimmer of older amateur singers and non-singers and whether there were significant correlations between these acoustic measurements and listener judgments of speaker age. Acoustic measurements were obtained on 60 speaker participants from a sustained vowel production. Study participants included 30 male and female singers and 30 male and female non-singers who were between the ages of 65 and 80. In addition, 10 speech language pathology graduate students were recruited as listener participants to estimate the age of speaker participants from recorded vowel sounds.

The results of this study partially supported previous findings regarding acoustic measures and listener age judgments of elderly speakers. Speaker participants were perceived as significantly younger than their real ages and male and female singers were perceived to be significantly younger than male and female non-singers. Significant differences were found between male and female singers and non-singers with regard to jitter and intensity, with singers displaying significantly less jitter and significantly greater intensity than non-singers. Perceived age was found to be related to jitter in male singers and non-singers and female singers. Perceived age was found to be related to

intensity in female non-singers. No statistically significant differences were found between singers and non-singers with regard to Fo or shimmer. No significant correlations were found between perceived age and intensity in male singers, male non-singers or female singers. Possible explanations for the differences between the present study results and results of earlier studies are discussed. Possible directions for future research studies are presented.