Abstract

The present study investigated the efficacy of non-programmed prolonged speech technique in persons with stuttering. A total of 30 Kannada speaking persons with stuttering in the age range of 15-38 years who were stratified into two groups based on their age at the time of treatment (group I- 15 to 24 years, group II- 25 to 38 years) participated in the study. Subjects’ reading, spontaneous speech / conversation were recorded prior to, after and 6 months after non-programmed prolonged speech therapy. Percent dysfluency, type of dysfluency, rate of reading and mean naturalness score, and temporal and spectral acoustic parameters were measured. Aerodynamic, laryngeal, and articulatory errors were also identified and classified as visualized on wide-band spectrograms. The results showed a significant decrease in percent dysfluency and rate of reading and significant increase in mean naturalness scores from pre-therapy to post-therapy conditions in both age groups. However, percent dysfluency and rate of reading increased and mean naturalness score decreased from post-therapy to 6-month post-therapy conditions. Significant differences between conditions were obtained for vowel duration, F2 transition duration, burst duration and voicing duration. Percent discrepant type of transitions decreased from pre-therapy to post-therapy conditions. Aerodynamic, laryngeal, articulatory and multiple errors were present in all conditions and groups. No consistent effect of age on any of the measures was noticed. The results indicated that non-programmed prolonged speech technique was effective and perceptual measures like percent dysfluency, rate of reading and mean naturalness score and
acoustic measures like vowel duration, $F_2$ transition duration, burst duration and voicing duration could be used as efficacy measures of non-programmed prolonged speech technique. Also individualized therapy techniques can be devised based on aerodynamic, laryngeal and articulatory errors as visualized on wide band spectrograms.