

Effectiveness of vocal hygiene education among undergraduate music students with self-reported voice problems at University of Visual Performing Arts and University of Kelaniya

Nagahawatta W.M.M.D.,^{1*} and Jayasena.B.N.²

¹*Department of Disability Studies, Faculty of Medicine, University of Kelaniya, Sri Lanka*

²*Rathmalana Audiology Center, Rathmalana, Sri Lanka*

[*malkawaruni@gmail.com](mailto:malkawaruni@gmail.com)

Background: Voice is the fundamental source of communication and plays an important role in daily life. Voice can indicate personal information such as the speaker's social status, personal characteristics, and emotional state. Occupational voice users, such as singers, teachers, and lawyers are more likely than non-professionals to develop voice disorders. By abusing or misusing their voices, professional singers are more likely to acquire laryngeal signs and symptoms, as well as pathology.

Objectives: To assess the Effectiveness of a Vocal Hygiene Program among undergraduate music students with self – reported voice problems in visual performing university and Kelaniya University. This study aim was to determine the effectiveness of a virtual vocal hygiene education program on improving self-reported voice problems in undergraduate music students by comparing the Voice Handicap Index 10 score, Voice Related Quality of life score and acoustic parameters of voice before and after conducting the virtual vocal hygiene education program.

Methods: This study included 30 undergraduate music students from the University of Visual and Performing Arts and the University of Kelaniya with self-reported vocal problems. The pre-scores were obtained after participants completed a self-administered voice case history, Voice Related Quality of Life, Voice Handicap Index -10, and voice samples. The study's participants were given a 30–45-minute vocal hygiene program that included basic voice production knowledge and 15 vocal hygiene tips. Participants in the study were required to follow the supplied vocal hygiene recommendations consistently for three weeks. At the end of the three weeks, all participants were given the Voice Handicap Index -10 and the Voice Related Quality of Life to collect post-test ratings, as well as voice samples to identify pre post results. Descriptive stats for demographic information of the participants mean and standard deviation of the pre and post voice handicap index -10, voice related quality of life and acoustic parameters. PRRAT software was used to analyse the voice samples. Inferential statistics for the mean difference in pre to post scores via paired t test was used to analyse the collected data.

Results: There is a statistically significant difference between the pre- and post- tests ($P < 0.05$) suggesting a positive association between complying with a vocal hygiene program and the reduction of voice related symptoms. The jitter and the shimmer parameters were significantly lower in the post-test compared to the pre- test. Mean intensity, mean pitch and the HNR values were significantly higher in post- test compared to the pre -test.

Conclusion: The conclusion of this study is that an effectively used vocal hygiene program can reduce the voice-related symptoms of undergraduate music students with self-reported voice problems.

Key words: *Vocal hygiene program, Voice Handicap Index -10, Voice Related Quality of Life, Acoustic parameters*