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Voice Risk Assessment: Assessing Risks for Voice Problems

Background: Voice problem has a prevalence rate of 6%. Yet, this prevalence rate is not distributed randomly in the population and certain population groups are more prone to developing voice problems. Multiple factors are involved in the development of voice disorders. The three major factors commonly cited are related to the 1) vocal loading, 2) physiological and 3) psycho-emotional areas.

Objective: This study aimed to investigate the risk factors and indicators that are involved with hyperfunctional voice disorders using a self-reported questionnaire. The questionnaire was validated to become the “Voice Risk Calculator” which could be used to determine the different risks that an individual might be prone to in developing voice problems.

Methodology: Forty non-dysphonic subjects and 120 dysphonic subjects with different severity levels were recruited from a university voice clinic. They aged between 20 to 60 years old. They were given a questionnaire with 40 items covering the vocal loading, physiological and psycho-emotional areas to complete. Subjects also completed a voice range profile, aerodynamic evaluation, and the Voice Activity and Participation Profile.

Results: The findings showed that 23 questionnaire items related to vocal loading, physiological and psycho-emotional areas can reliably (>90%) distinguish between dysphonic and non-dysphonic subjects. Stepwise multiple regression also showed that as few as 5 items of the questionnaire could be used to reliably predict the presence of voice problems.

Conclusion: It is contended that with the identified risk indicators of voice problems, specific methods and strategies for preventive, diagnostic and intervention programs can then be developed to eliminate or reduce these conditions.