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VoiSS: Voice Symptoms Scale

User's Guide

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Introduction

Many voice-rating tools are physician-derived. Our aim was to develop a patient-derived inventory of voice symptoms for use as a sensitive assessment tool of (i) baseline pathology, and (ii) response to change in adult dysphonia clinics.

Development

The VoiSS originated in an open-ended questionnaire ¹ which yielded 467 difficulties and problems reported by 133 consecutive patients with voice disorders ². The 53 different items were compiled as a self-report questionnaire and presented to a further 168 voice patients. Thirteen further disability and handicap items were then added from the Voice Handicap Inventory ³. The resulting 44-item Voice Symptom Scale (VoiSS) questionnaire was completed by a further 180 subjects ⁴. Each item had a 5-point, frequency-based response scale: never, occasionally, some of the time, most of the time, all of the time. One item, relating to work, was withdrawn from the analysis, as too many subjects were not in employment, leaving 43 items.

A further study involved 319 unselected dysphonic outpatient referrals typical of the UK dysphonia population, at two otolaryngology clinics, in Glasgow and Newcastle upon Tyne. Three clear and relatively distinct factors emerged

- **Impairment (15 items)**
- **Emotional (8 items)**
- **Physical symptoms (7 items)**

The 30 items in these 3 factors account for 48.9% of the total variance, and form the final version VoiSS which can be downloaded here and used freely. All 30 items load positively, and mostly highly, on the first unrotated principal component (accounting for 33% of the total item variance). This suggests that almost all of the items share variance, and relate generally to voice dysfunction. The internal consistencies (Cronbach alpha) of the general and rotated components are high. (Data in press). Uniquely,

VoiSS includes related upper aerodigestive tract symptoms – e.g. throat clearing, globus, phlegm, blocked nose, commonly associated with, and also targets for therapeutic intervention

Summary

- VoiSS is the most rigorously evaluated and psychometrically robust measure currently available for the self assessment of voice quality.
- The total score on the VoiSS measures general voice pathology.
- Three robust subscales assess voice impairment, emotional reaction and related physical symptoms.

Using VoiSS

VoiSS is suitable for general adult dysphonia populations. Each item is scored 0 to 4 on the frequency responses: never, occasionally, some of the time, most of the time, always

The total VoiSS score (max 120) indicates the level of general voice pathology

The subscales are computed by summation of items as follows:

Impairment: 1, 2, 4, 5, 6, 8, 9, 14, 16, 17, 20, 23, 24, 25, 27 (max = 60)

Emotional: 10, 13, 15, 18, 21, 28, 29, 30 (max = 32)

Physical: 3, 7, 11, 12, 19, 22, 26 (max = 28)

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