







# DUTCH EVALUATION OF ABILITY TO SING EASILY (EASE): A PILOT STUDY

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#### Introduction

Singers often experience small changes in their singing voice, that are hard to analyze objectively.(1) Therefore, self-reported questionnaires are of great importance to inventory vocal symptoms and are useful tools to add to a diagnostic protocol that can distinguish between a pathological or a normal situation. An example of this type of questionnaire is "EASE: the ability to sing easily". The purpose of the EASE is to assess these subtle differences and the effect of load on the singer's voice, using self-evaluation.

### Aim

The aim of this study is to develop a Dutch version of the English questionnaire EASE (EASE-NL) that is equally reliable and valid for detecting voice problems in singers.

# Methods

## Phase 1:

establishing Dutch translation using forward-backward translation

## Phase 2: data collection

46 participants without vocal complaints were included in the study and completed the following two parts of the questionnaire:

(1) General questions regarding participants history

(2) EASE-NL questionnaire

# Phase 3:

statistical analysis of the scores on subscales Vocal Fatigue (VF) and Pathologic Risk Indicator (PRI)

A comparison of the statistics was made between EASE-NL, EASE and EASE-K

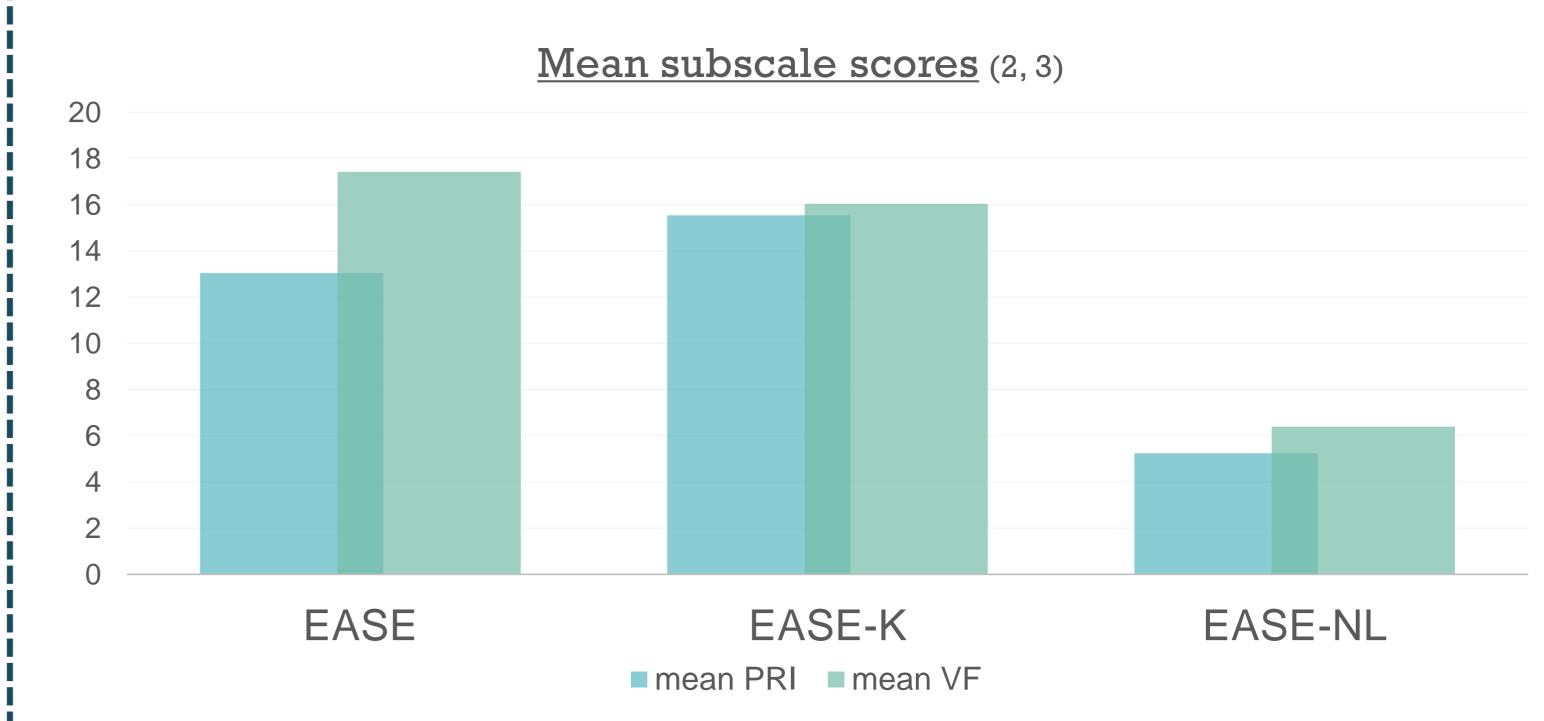
## References

- (1) Pestana et.al. J. Voice. 2017, 31(6):722-7
- (2) Phyland et.al. Folia Phoniatr Logop. 2014, 66(3):100-8
- (3) Devadas et.al. J. Voice. 2019

## Results

Statistical analysis showed the following results:

- Spearman's correlation → significant positive correlation between the two subscales
- Chronbach' Alfpha → good internal consistency, for both VF and PRI
- Nonparametric tests → no significant effect of gender and age on total test score and subscale scores
- Students T-test → comparison of means and standard deviations
   EASE-NL displayed overall lower mean scores, with a statistical significant difference.



## Potential causes of these differences in means:

- Cultural and linguistical differences
- Singers with vocal pathology or complaints were excluded for EASE-NL and not for EASE
- Different singing genres
- Smaller sample size
- Participant variability

## Discussion

The current results show that EASE-NL is a valid tool to assess the subjective changes in singing voice.

## **Further research**:







test group of singers with



voice pathology

conclusions about the possibility to detect voice problems with EASE-NL