INTRODUCTION

Vocal problems and their impact on quality of life differ significantly between elite vocal performers (actors and singers) and other individuals. The aim of this investigation is: 1) Determine the sociodemographic characteristics of a group of elite vocal performers (singers and actors) and the Portuguese validated versions of the Voice Handicap Index (VHI) and Singing Voice Handicap Index (SVHI) in addressing different voice pathologies.

METHODS AND MATERIALS

PARTICIPANTS

The study had the participation of 324 individuals (217 singers and 107 actors). All the participants were evaluated by means of 1) sociodemographic questionnaires addressing sociodemographic characteristics and vocal use; 2) the Portuguese version of the VHI and SVHI instruments to assess the impact of vocal handicap in different voice pathologies; and 3) transnasal laryngoscopy to investigate the presence of laryngeal pathologies.

ASSESSMENT

All the participants were evaluated by means of a telephone or transnasal laryngoscopy and completed a sociodemographic questionnaire addressing sociodemographic characteristics and vocal use, and the Portuguese version of the VHI. All the singers completed the Portuguese version of the SVHI.

The study received prior approval from the Ethics Committee of the Egas Moniz University Hospital.

STATISTICAL ANALYSIS

Descriptive statistics used mean, median, standard deviation, minimum, maximum, and quantitative variables and absolute (n) and relative (%) values for qualitative variables. Receiver operating characteristic (ROC) curves were used to investigate the discriminating power of the VHI and SVHI instruments to address different voice pathologies.

RESULTS

SOCIODEMOGRAPHIC CHARACTERIZATION

Of the 324 subjects, 51.2% were female and 48.8% were male with a mean age of 40.8 years (range: 15-82 years). More than half were single (32.1%) or divorced/widowed (16.5%) and smoke on average and worked with the voice for nearly 21 years. A ROC curve analysis showed a weak discriminating power between diagnoses and VHI or SVHI scores, except for vocal cord nodules that are associated with a higher average VHI score.

The Portuguese version of the VHI and SVHI instruments are useful to measure the voice handicap among Portuguese actors and singers but have a limited value to discriminate between vocal pathologies.

Table 1. Sociodemographic characteristics

LARYNGOSCOPY

The most common diagnosis was reflux laryngitis (74.7% of cases), followed by functional dysphonia type 1 (Koufman) (15.1% of cases).

Table 2. Laryngoscopic diagnosis

VHI AND SVHI SCORES

VHI and SVHI domain scores presented the following mean scores:

VHI emotional score, 2.8 (range: 0 to 35)
VHI physical score, 5.7 (range: 0 to 31)
VHI functional score, 3.0 (range: 0 to 26)
Average, the total score of VHI was 13.6 (range: 0 to 30) and of the SVHI was 31.1 (range: 0 to 135).

Table 3. VHI and SVHI scores

CORRELATION BETWEEN THE VHI AND SVHI SCORES AND LARYNGOSCOPY DIAGNOSIS

The VHI score was statistically associated with nodules on vocal cords (p=0.019). Patients with nodules on vocal cords presented a median VHI score higher than patients without nodules on vocal cords.

Table 4. VHI and diagnosis

The SVHI score was not statistically associated with diagnosis.

Table 5. SVHI and diagnosis

CONCLUSION

The Portuguese versions of the VHI and SVHI instruments are useful to measure the voice handicap among Portuguese actors and singers but have a limited value to discriminate between vocal pathologies.