

Appendix A

Voice Handicap Index¹ and its Mandarin Translation²¹

- F1. My voice makes it difficult for people to hear me.
我的聲音難以讓人聽清楚。
- P2. I run out of air when I talk.
在說話時，我會喘不過氣。
- F3. People have difficulty understanding me in a noisy room.
在吵雜室內時，別人難以聽懂我在說什麼。
- P4. The sound of my voice varies throughout the day.
我的聲音從早到晚會有變化。
- F5. My family has difficulty hearing me when I call them throughout the house.
當我在家中的另一頭叫喚家人時，他們難以聽見我的聲音。
- F6. I use the phone less often than I would like to.
因為我的聲音，我會想減少使用電話次數。
- E7. I am tense when talking to others because of my voice.
因為我的聲音，我跟別人講話時會緊張。
- F8. I tend to avoid groups of people because of my voice.
因為我的聲音，我會試著避開群眾。
- E9. People seem irritated with my voice.
別人似乎受不了我的聲音。
- P10. People ask, "What's wrong with your voice?"
別人會問「你的聲音怎麼了？」
- F11. I speak with friends, neighbors, or relatives less often because of my voice.
因為我的聲音，我現在較少和朋友、鄰居或親戚講話和連絡。
- F12. People ask me to repeat myself when speaking face-to-face.
面對面說話時，別人會請我再說一次。

- P13. My voice sounds creaky and dry.
我的聲音聽起來緊緊、乾乾的。
- P14. I feel as though I have to strain to produce voice.
發出聲音使我覺得吃力。
- E15. I find other people don't understand my voice problem.
我覺得別人不了解我的聲音問題。
- F16. My voice difficulties restrict my personal and social life.
聲音的問題限制了我個人和社交的生活。
- P17. The clarity of my voice is unpredictable.
我無法預期我聲音的清晰度。
- P18. I try to change my voice to sound different.
我試著改變我的聲音使它聽起來不一樣。
- F19. I feel left out of conversations because of my voice.
因為聲音的緣故，我覺得無法參與話題。
- P20. I use a great deal of effort to speak.
我需要很費力才能說話。
- P21. My voice is worse in the evening.
我的聲音在晚上時更糟。
- F22. My voice problem causes me to lose income.
我的聲音問題使我的收入減少。
- E23. My voice problem upsets me.
我的聲音問題使我感到困擾。
- E24. I am less outgoing because of my voice problem.
我因為聲音的問題，變得較不外向。
- E25. My voice makes me feel handicapped.
我的聲音使我覺得我有殘障。
- P26. My voice 'gives out' on me in the middle of speaking.

我的聲音在話說到一半時會斷掉。

E27. I feel annoyed when people ask me to repeat.

別人請我再說一次時，我會覺得不耐煩。

E28. I feel embarrassed when people ask me to repeat.

別人請我再說一次時，我會感到不好意思。

E29. My voice makes me feel incompetent.

我的聲音使我覺得無能。

E30. I am ashamed of my voice problem.

因為我的聲音，我感到難為情。

Note. The letter preceding each item number corresponds to the subscale (E = emotional subscale, F = functional subscale, P = physical subscale).

Appendix B

Voice Handicap Index-10¹ and its Mandarin Translation²¹

- F1. My voice makes it difficult for people to hear me.
我的聲音難以讓人聽清楚。
- F3. People have difficulty understanding me in a noisy room.
在吵雜室內時，別人難以聽懂我在說什麼。
- P10. People ask, “What’s wrong with your voice?”
別人會問「你的聲音怎麼了？」
- P14. I feel as though I have to strain to produce voice.
發出聲音使我覺得吃力。
- F16. My voice difficulties restrict my personal and social life.
聲音的問題限制了我個人和社交的生活。
- P17. The clarity of my voice is unpredictable.
我無法預期我聲音的清晰度。
- F19. I feel left out of conversations because of my voice.
因為聲音的緣故，我覺得無法參與話題。
- F22. My voice problem causes me to lose income.
我的聲音問題使我的收入減少。
- E23. My voice problem upsets me.
我的聲音問題使我感到困擾。
- E25. My voice makes me feel handicapped.
我的聲音使我覺得我有殘障。

Note. The letter preceding each item number corresponds to the subscale (E = emotional subscale, F = functional subscale, P = physical subscale).

APPENDIX C

VOICE-RELATED QUALITY OF LIFE (V-RQOL) MEASURE³ and its Mandarin Translation²²

- P1. I have trouble speaking loudly or being heard in noisy situations.
在吵雜情況下，大聲說話或使他人聽到我的聲音是有困難的。
- P2. I run out of air and need to take frequent breaths when talking.
在說話時，我會上氣不接下氣，而且感覺呼吸很喘。
- P3. I sometimes do not know what will come out when I begin speaking.
我有時不知道我一開口說話會發出什麼樣音質的聲音。
- E4. I am sometimes anxious or frustrated (because of my voice).
我有時會感到焦慮或挫折（因為嗓音的緣故）。
- E5. I sometimes get depressed (because of my voice).
我有時會感到沮喪（因為嗓音的緣故）。
- P6. I have trouble using the telephone (because of my voice).
講電話對我而言是有困難的（因為嗓音的緣故）。
- P7. I have trouble doing my job or practicing my profession (because of my voice).
我在工作上或職場上有困難（因為嗓音的緣故）。
- E8. I avoid going out socially (because of my voice).
我會避免外出社交活動（因為嗓音的緣故）。
- P9. I have to repeat myself to be understood.
我必須重覆說過的話，別人才能聽懂。
- E10. I have become less outgoing (because of my voice).
我變得越來越不外向（因為嗓音的緣故）。

Note. The letter preceding each item number corresponds to the subscale (E = social-emotional functioning subscale, P = physical functioning subscale).

Scoring Algorithm for V-RQOL Measure³

V-RQOL General Scoring Algorithm

$$100 - \frac{(\text{Raw Score} - \# \text{ items in domain or total}) \times 100}{(\text{Highest Possible Raw Score} - \# \text{ items})}$$

Social-Emotional Domain (Items 4, 5, 8, 10)

$$100 - \frac{(\text{Raw Score} - 4) \times 100}{16}$$

Physical Functioning Domain (Items 1, 2, 3, 6, 7, 9)

$$100 - \frac{(\text{Raw Score} - 6) \times 100}{24}$$

Total Score (Items 1-10)

$$100 - \frac{(\text{Raw Score} - 10) \times 100}{40}$$

Example for Total Score

If *Raw Score* is 30 (such as if a “medium problem” exists with all items), then:

$$100 - \frac{(20) \times 100}{40}$$

$$= 100 - (0.5 \times 100) = 100 - 50 = 50 \text{ standard score}$$