Original Article

Robyn M. Cox*
Dafydd Stephens†
Sophia E. Kramer‡

*The University of Memphis,
Memphis, TN, USA,
†Welsh Hearing Institute,
University Hospital of Wales,
Cardiff, UK,
‡Vrije University Medical Center,
Department of Audiology/
Otolaryngology, Amsterdam,
The Netherlands

Translations of the International Outcome Inventory for Hearing Aids (IOI-HA)

Traducciones del Inventario Internacional de Resultados para Auxiliares Auditivos (IOI-HA)

The International Outcome Inventory for Hearing Aids (IOI-HA) was developed as a product of an international workshop on Self-Report Outcome Measures in Audiological Rehabilitation (Cox et al, 2000). The workshop participants recognized a need to be able to combine and compare data from different investigations and clinical service models. Thus, the inventory was developed to facilitate co-operation among researchers and program evaluators in diverse hearing healthcare settings, including across national boundaries. By design, it is brief and general enough to be appropriate in many different studies. The goal is to append the IOI-HA items to other self-report outcome measures that might be planned for a specific application. The IOI-HA items will then provide directly comparable data that will allow combination or comparison across otherwise incompatible projects.

For this plan to be successful, it is essential to generate psychometrically equivalent translations in the languages in which hearing aid research and treatment assessments are performed. Elsewhere in this issue, there are two reports that reflect psychometric assessments of the original English version of IOI-HA in the USA and in Wales. A further report gives an assessment of the characteristics of a Dutch translation of the IOI-HA, used in The Netherlands. It is encouraging that all three investigations produced data reflecting similar inter-item correlations and two non-overlapping separate factors that were essentially identical across the studies.

These papers were presented at the meeting of the International Collegium of Rehabilitative Audiology (ICRA) held in Cardiff in May 2001. A number of the contributors to the original self-report workshop were present, and it was decided to organize members and their associates to generate translations of the question-naire into a number of different languages. It was also decided to explore other applications of the questionnaire, of which a preliminary approach is presented in this issue by Noble.

The present article reports a set of 21 careful translations of the IOI-HA into other languages. All translations were performed by individuals who are well versed in the academic discipline and have the target language as their first language. Each translation was checked by at least one additional qualified individual to ensure that each item captures the nuances of the original English wording. Each translator carefully followed the design principles of the original version. There are seven items in the inventory, each accessing a different self-report outcome dimension. The items were written to be unambiguous, with few cognitive requirements and at a low reading level. Negative statements and reversed meanings were avoided. An attempt was made to eschew any cultural bias. All items were designed with five possible responses. The response categories for six of

the items were chosen so that their semantic distinctions (in English) were roughly equal (Levine, 1981). The seventh item requires an estimate of hours of daily use. To maximize the comprehensibility of the inventory, each item has a separate response continuum, and the responses are presented so that the most favorable item appears on the right. It is intended to present the translations in the appendices in copy-ready format so that they can be used immediately. These translations and any others that might have been generated are also available as downloadable files from the website www.ausp.memphis.edu/harl.

With the exception of the Dutch translation, none of the non-English translations presented here has been studied to determine its psychometric properties. The next appropriate step would be for each of the translations to be used with a group of native speakers of the target language. The psychometric properties of the translated inventory should then be determined and compared to those of the English version. The original English version should be used as a criterion, and changes should be made to the wording of translated items that do not appear to replicate the characteristics of the criterion.

This article presents translations of the IOI-HA only. However, this inventory represents the first in what was envisioned by workshop participants as a series of inventories. Other IOI versions could be used to assess and compare the outcomes of audiological rehabilitation using devices other than hearing aids. In addition, a version that addresses the rehabilitation result from the point of view of other individuals (i.e. significant others of the hearing-impaired person) could be very useful. Progress has been made in devising suggested wording for the English language items for these IOI offshoots (Noble, this issue).

Acknowledgements

References

Cox RM, Hyde M, Gatehouse S, et al. (2000) Optimal outcome measures, research priorities and international cooperation. Ear Hear 21:106S–15S.
Levine N. (1981) The development of an annoyance scale for community noise assessment. J Sound Vibration 74:265–79.

IZID MEDNARODNEGA POPISA – SLUSNI APARATI (IMP-SA)

1. Premislite koliko ste uporabljali vaš sedanji slušni aparat v zadnjih dveh tednih. Koliko ur na dan ste ga uporabljali?

nič	manj kot eno uro na dan	1-4 ure dnevno	4-8 ur dnevno	več kot 8 ur dnevno
❏	❏	❏	❏	❏

2. Premislite ob kateri priložnosti ste želeli slišati bolje, preden ste dobili sedanji slušni aparat. Kako vam je v zadnjih dveh tednih slušni aparat pomagal ob takih priložnostih?

sploh ni pomagal	nekoliko pomagal	sorazmerno pomagal	precej pomagal	zelo pomagal
❏	❏	❏	❏	❏

3. Ponovno premislite kdaj ste želeli slišati bolje. Koliko težav še imate, ko uporabljate sedanji slušni aparat?

zelo veliko	precej	sorazmerno veliko	le nekaj težav	nobenih težav
❏	❏	❏	❏	❏

4. Vse skupaj upoštevajoč ali mislite, da je vaš sedanji slušni aparat vreden tolikšnega truda?

sploh ne	le nekoliko	sorazmerno veliko	precej	zelo
❏	❏	❏	❏	❏

5. Koliko so vaše težave s sluhom vplivale na vaše početje v preteklih dveh tednih ob uporabi sedanjega slušnega aparata?

zelo	precej	sorazmerno	le nekoliko	sploh niso
❏	❏	❏	❏	❏

6. Kaj mislite, koliko so druge ljudi v okolici motile vaše slušne težave v zadnjih dveh tednih, ko ste uporabljali sedanji slušni aparat?

zelo	precej	sorazmerno	le nekoliko	sploh ne
❏	❏	❏	❏	❏

7. Vse skupaj upoštevajoč, koliko je sedanji slu_ni aparat spremenil vaše počutje?

poslabšal	brez sprememb	nekoliko izboljšal	precej izboljšal	zelo izboljšal
❏	❏	❏	❏	❏

Slovenian Version