

IOI-HA: PSYCHOMETRIC DATA AND RELATIONSHIP TO SATISFACTION

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Introduction

The first report on the International Outcome Items for Hearing Aids (IOI-HA) appears in a supplement to Ear and Hearing, August 2000 issue. It is a seven-item profile that was developed in September, 1999 by a 15-participant international workshop on hearing aid outcomes. The plan is to promote the use of the IOI-HA as an addendum to other outcome measures in hearing aid research. This will allow apple-to-apple cross-country and cross-institution comparisons of hearing aid technologies as well as service delivery models.

Because of its brevity and simplicity, the IOI-HA will also appeal to busy practitioners seeking a feasible approach to outcome documentation.

In this poster, we present some information about IOI-HA data and its relation to satisfaction for hearing aid wearers.

Outcome Domains & Item Excerpts

1. (USE)on an average day, how much did you use the hearing aid(s)?
2. (BENEFIT) ..the situation where you most wanted to hear better ...how much has the hearing aid helped?
3. (RESIDUAL LIMITATIONS) ..the situation where you most wanted to hear better ...how much difficulty do you still have?
4. (SATISFACTION) ...do you think.. hearing aid(s) is worth the trouble?
5. (PARTICIPATION) ..with..hearing aid(s),.. how much has hearing difficulties affected the things you can do?
6. (IMPACT ON OTHERS) ..with..hearing aid(s),...how much are other people bothered by your hearing difficulties?
7. (QUALITY OF LIFE) ...how much..hearing aid(s) changed enjoyment of life?



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Psychometric characteristics of IOI-HA

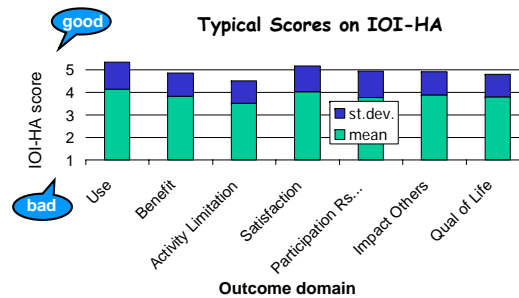
Subjects for this analysis were a group of 172 mostly older men and women who had been fitted with a new hearing aid within the past 2 years. The fittings took place at 2 non-VA clinics. About 60% of fittings were bilateral. The instruments represented a mixture of technology types .

Each subject completed the SADL (Satisfaction with Amplification in Daily Life) and IOI-HA questionnaires.

Analyses: 69% of the variance in IOI-HA responses was explained by 2 factors (see Table). The internal consistency reliability coefficient (Cronbach alpha) was .78.

Factor 1 includes variables that reflect the interaction of the individual with the hearing aid.
Factor 2 is more concerned with the interaction of the individual with other people in his/her life.

Factor 1 (42% of variance)	Factor 2 27% of variance
Quality of life	Impact on others
Satisfaction	Participation
Benefit	Restriction
Use	Activity Limitation



This figure shows the mean and standard deviation of responses to each item. The mean scores hover somewhat above the middle of the scoring range. The SDs are about one interval wide. Thus, none of the items seems to elicit extreme scores and the scores are adequately diverse across individuals.

Relationships between IOI-HA responses and Satisfaction

Subscales of SADL questionnaire (Satisfaction with Amplification in Daily Life)

- **Positive Effect (PE):** Improved psychoacoustic and psychological functioning.
- **Service & Cost (SC):** Dispenser competence and hearing aid value.
- **Negative Features (NF):** Impact of potentially unpleasant aspects.
- **Personal Image (PI):** View of self as hearing aid wearer.

The Table below shows that there are strong associations between the IOI-HA items and the SADL subscales.

Outcome Domain	IOI Item	PE	SC	NF	PI
Use	1	☆☆	☆☆		
Benefit	2	☆☆	☆☆		
Residual limitation	3	☆☆	☆☆	☆☆	☆
Satisfaction	4	☆☆	☆☆	☆☆	
Participation	5			☆☆	☆☆
Impact on others	6	☆☆	☆	☆☆	☆☆
Quality of life	7	☆☆	☆☆	☆	

(Significance of correlation between IOI-HA item and SADL subscale score. ☆☆☆ = p<.01; ☆☆ = p<.05)

Examples of IOI-HA profiles & overall satisfaction

