



Towards an Understanding of Client Outcome Measures

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EARtrak survey tool

- IOI-HA
- Satisfied with hearing aids
- Recommend hearing aids
- Recommend service
- % listening situations satisfied
- % hearing aid features satisfied
- % service features satisfied

Client variables

Total N	793
Age	70 +/- 13 years
Gender	58 % male
Experience	53% new users
Hearing loss	82% symmetrical
Funding	53% private

Hearing aid variables

Fitting	74% binaural
Technology	91% digital
Programs	51% multiple
Microphones	42% multiple
Style	32% BTEs

IOI-HA - satisfaction sub-test

- Average daily hearing aid use
- Degree of help
- Worth the effort
- Enjoyment of life

IOI-HA - residual difficulties sub-test

- Residual difficulty
- Activity interference
- Others affected

Average daily hearing aid use & other IOI-HA items

Satisfaction items	0.31*-0.40*
Residual difficulty items	0.06-0.10*
Total (excl h/aid use)	0.31*

Average daily hearing aid use & general satisfaction

Satisfied with h/aids	0.34*
Recommend h/aids	0.31*
Recommend service	0.19*

Satisfaction items - internal relationships

Each other	.67* - .71*
Residual difficulty item	.42* - .49*
Residual difficulty sub-total	.38* - .44*
Activity interference	.29* - .32*
Others affected	.26* - .29*

Satisfaction items - external relationships

Satisfied with h/aids	.62* - .64*
% listening situations satisfied	.43* - .48*
Recommend h/aids	.34* - .44*
% h/aid features satisfied	.37* - .40*
Service features score	.25* - .32*
Recommend service	.22* - .26*

Residual difficulty items - internal relationships

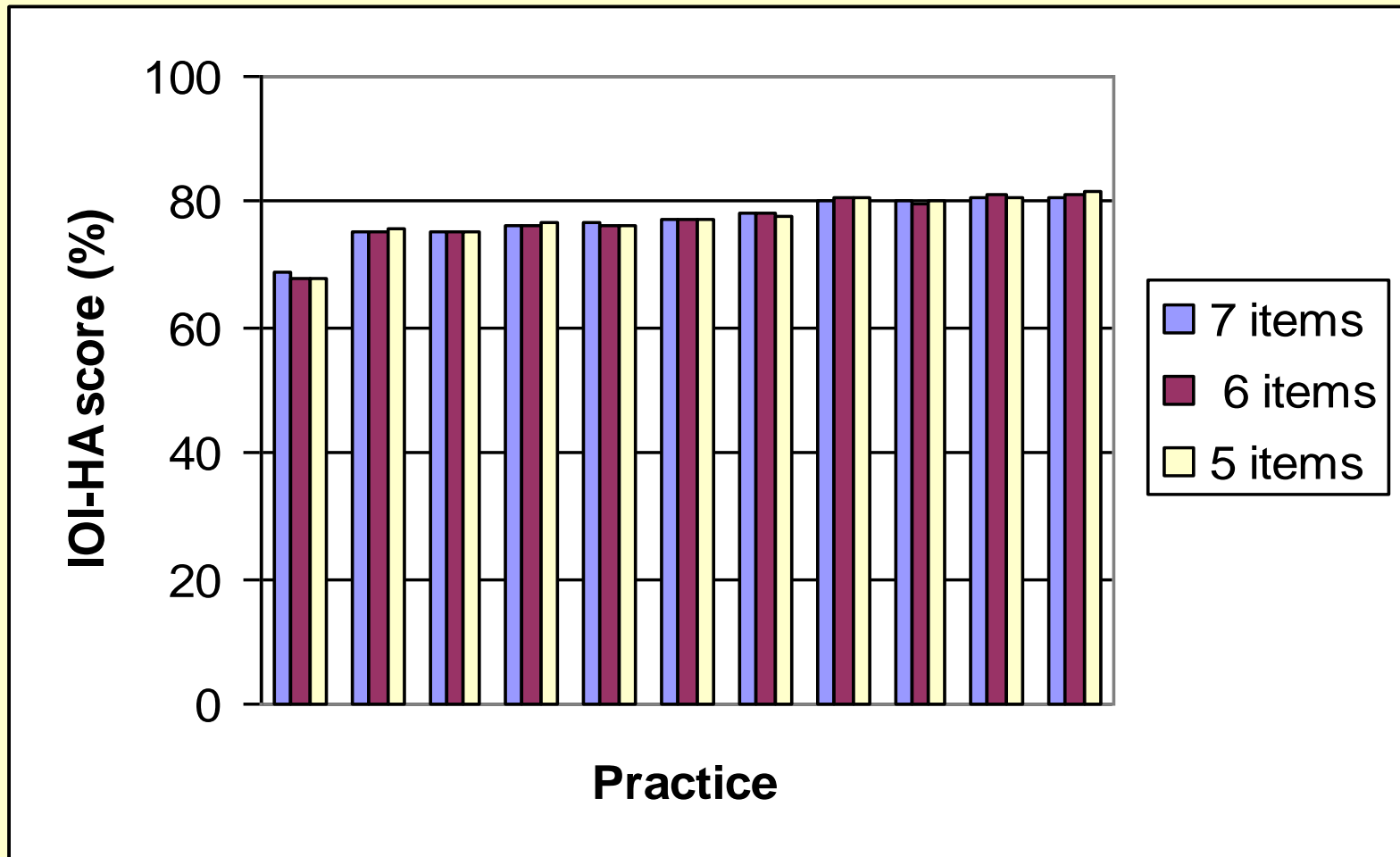
Activity interference	Others affected	.49*
Residual difficulty	Activity interference	.46*
Residual difficulty	Others affected	.38*

Residual difficulty items - external relationships

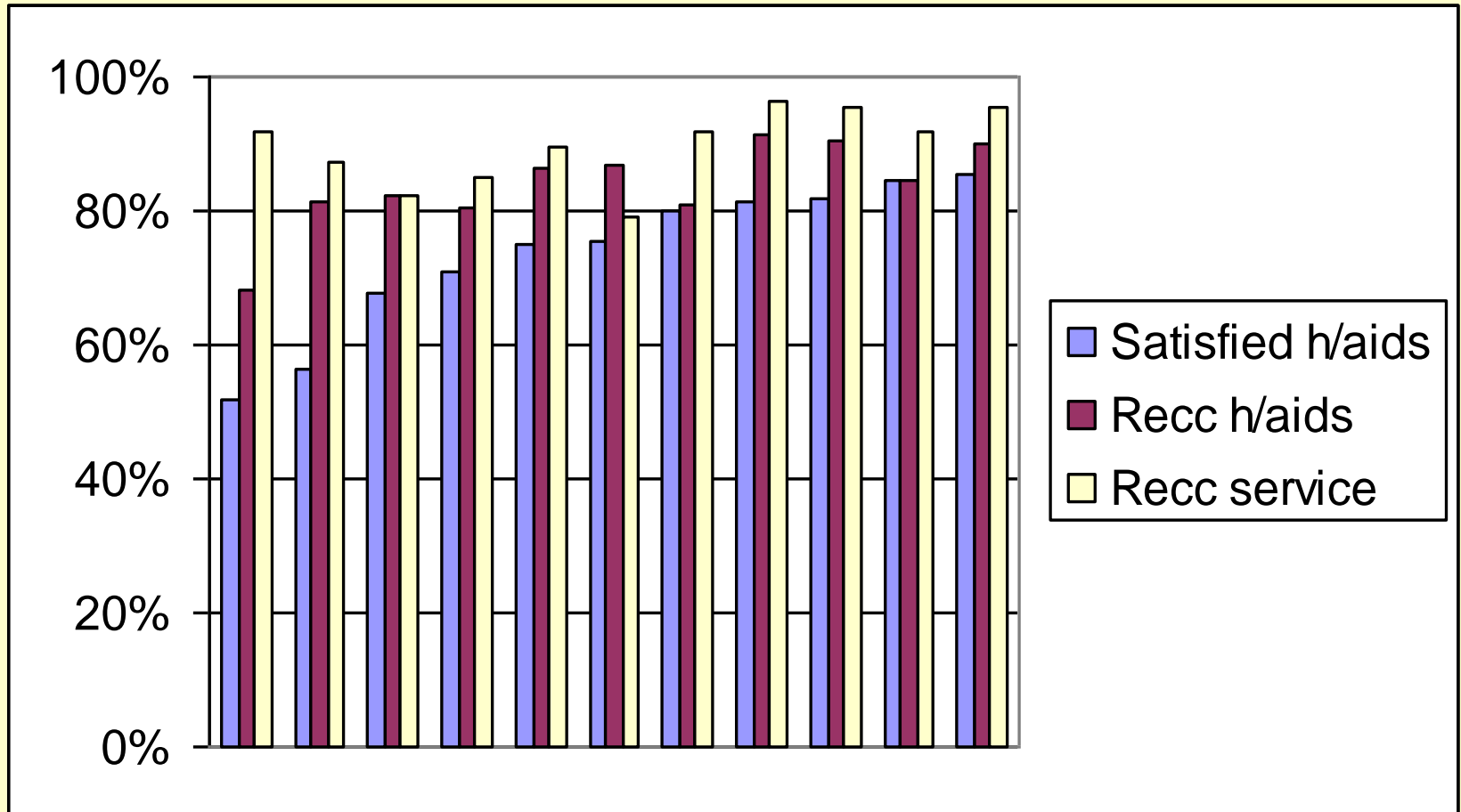
% listening situations satisfied	.35* - .54*
Satisfied with h/aids	.28* - .53*
% h/aid features satisfied	.25* - .42*
Recommend h/aids	.16* - .23*
Service features score	.17* - .20*
Recommend service	.12* - .20*

Practice differences

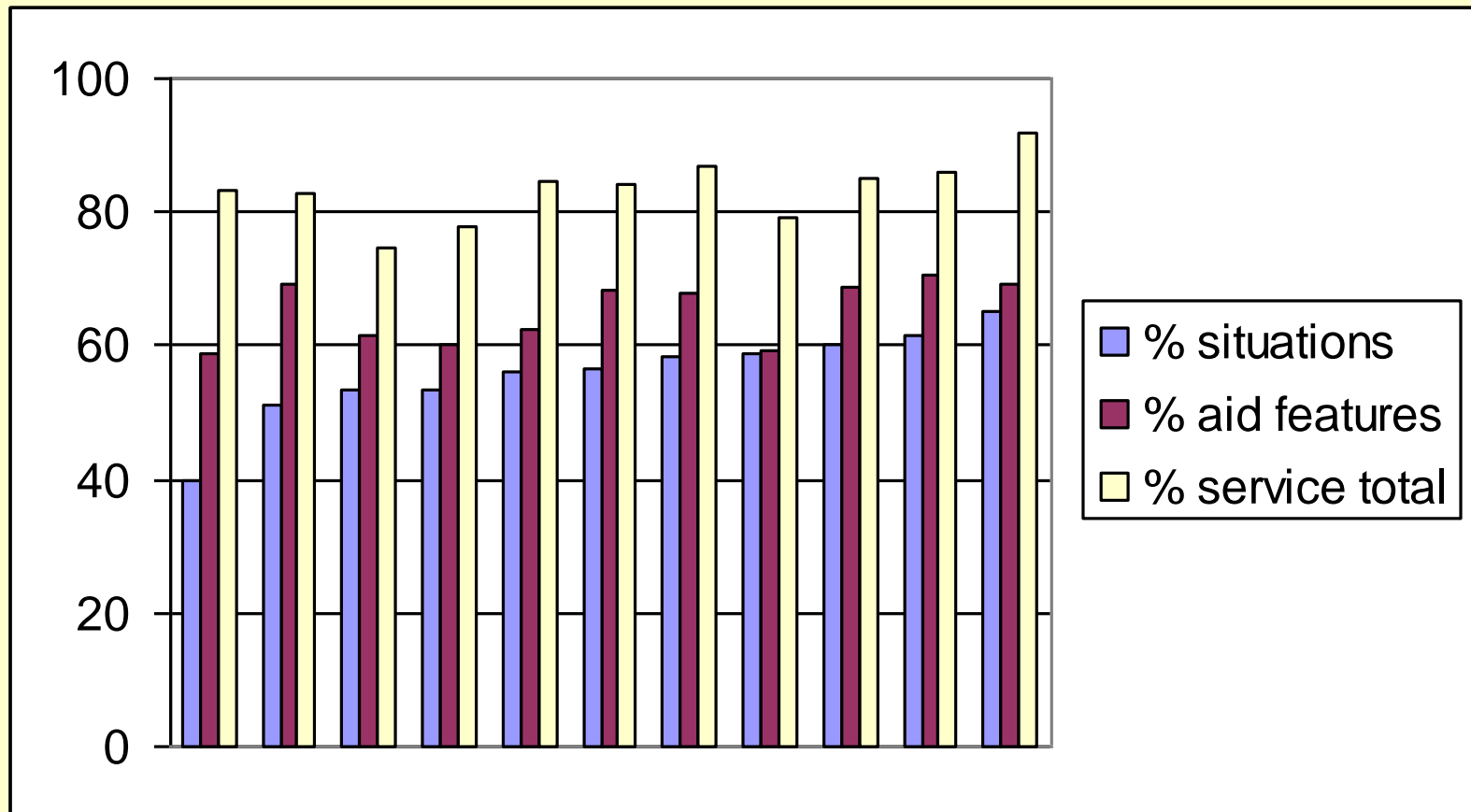
IOI-HA totals



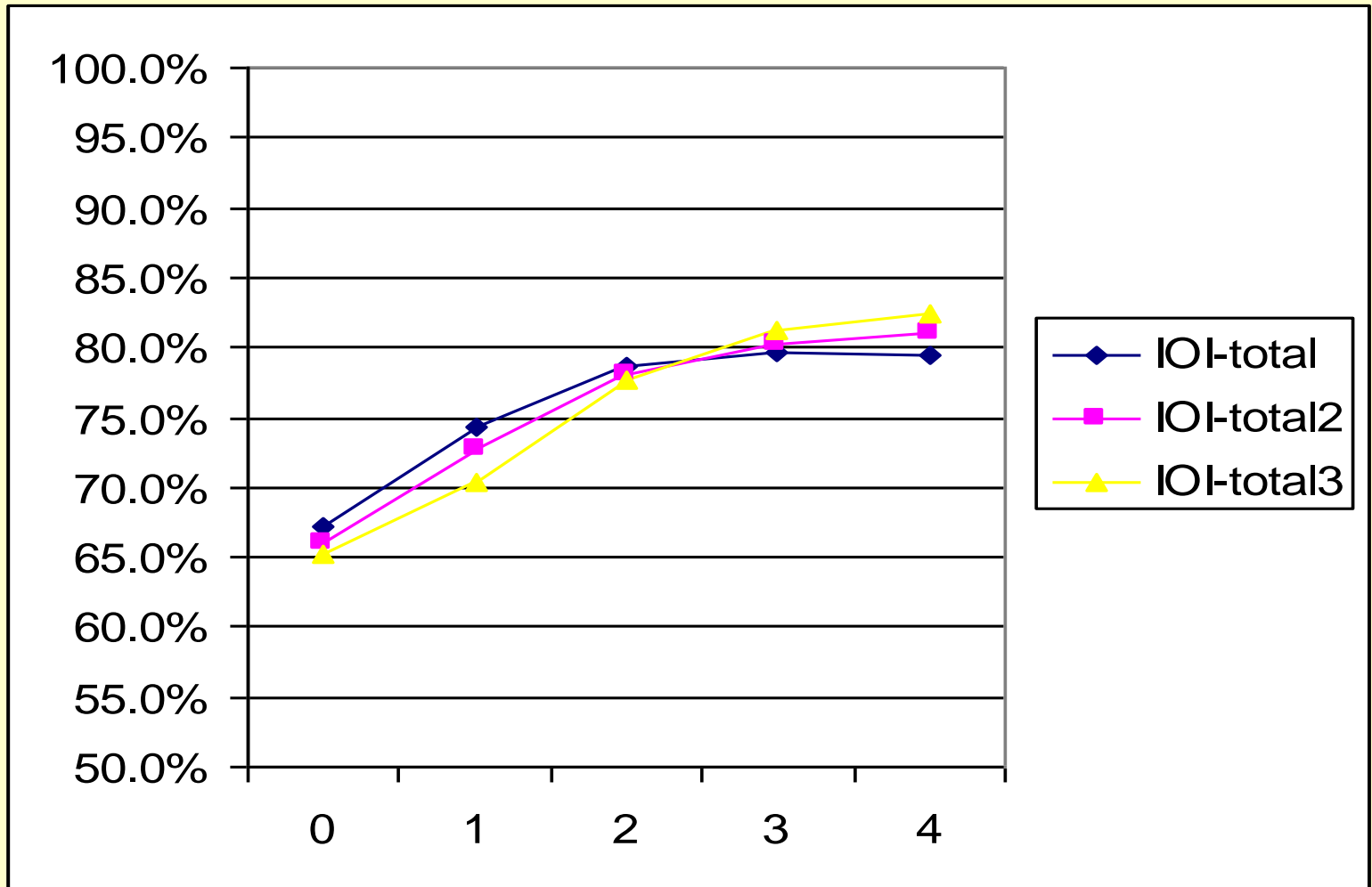
Practice differences satisfaction



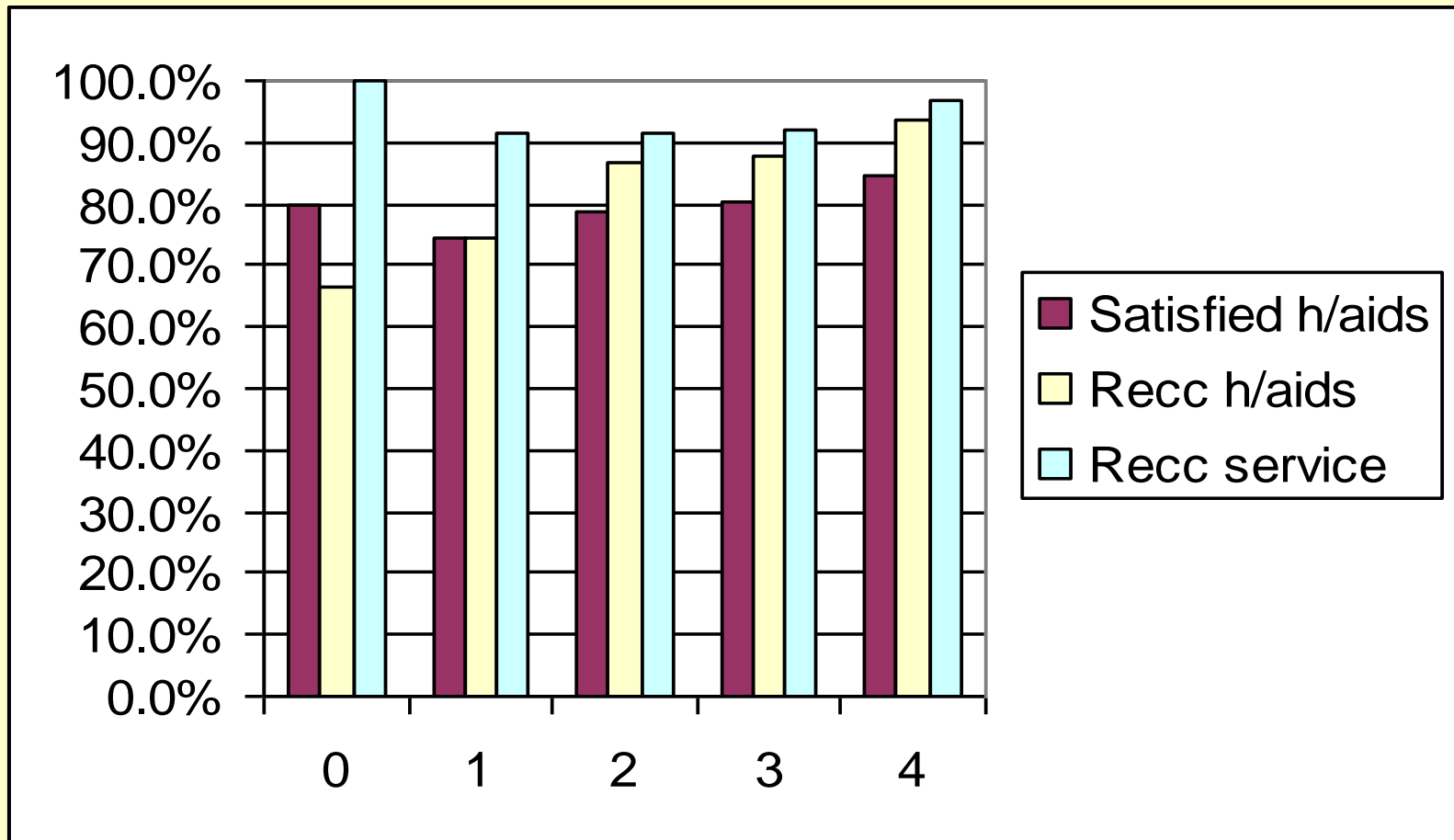
Practice differences summary scores



IOI-HA & disability



Satisfaction items & disability



Satisfied with h/aids..1

IOI-HA	Worth the trouble	.64
IOI-HA	Enjoyment of life	.63
IOI-HA	Degree of help	.62
Aid features	Clarity	.59
Situations	% situations	.56
Aid features	% aid features	.54
Situations	Small groups	.52
Aid features	Reliability	.51

Satisfied with h/aids..2

Situations	TV	.50
Situations	Restaurant	.50
Situations	Large groups	.50
Situations	One to one	.48
Situations	Outdoors	.48
Situations	Workplace	.48
Aid features	Voice sound	.48
Situations	Church/lectures	.46
Situations	Car	.46

Recommend h/aids

IOI-HA	Worth the trouble	.64
IOI-HA	Enjoyment of life	.63
IOI-HA	Degree of help	.62
IOI-HA	Residual difficulties	.53
General satisfaction	Recommend service	.48
General satisfaction	Satisfied with h/aids	.40
IOI-HA	Activity interference	.36
Aid features	% aid features	.32

Recommend service

General satisfaction	Recommend h/aids	.48
Service features	Explanations	.33
Service features	Post-purchase service	.33
Service features	% service features	.31
Service features	Patience	.31
General satisfaction	Satisfied with h/aids	.31
Service features	Time spent	.30

Conclusions ..1

- IOI-HA 3 factors:
 - Use
 - Satisfaction - 3 items highly inter-correlated
 - Residual difficulties -1st item correlates best with other measures
 - "Others affected" correlates least with other measures
- IOI-HA influenced by disability, as well as satisfaction with hearing aid fitting

Conclusions ..2

- IOI-HA relatively insensitive to differences in clinical practice
- Reducing test to 5 items improves sensitivity slightly
- Daily hearing aid use item from IOI-HA of interest, but not same as satisfaction

Conclusions ..3

- Kochkin's measures relatively independent of perceived disability
- Kochkin's general satisfaction measures more sensitive & so more useful for comparison purposes than IOI-HA
- General satisfaction most related to clarity of sound, reliability of aid/s & satisfaction in listening situations
- Totals of scores for listening situations, aid features & service useful measures