


**Duke University School of Medicine**

## Preliminary Data on the Self-Identified Hearing Goals (SIHG) Questionnaire

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### Disclosures

- Salary from Duke University
- Affiliation with Mountain Home VAMC
  - Currently leave without pay status
- Study was supported by Rehabilitation Research and Development Auditory Vestibular Research Enhancement Award Program
- ARA board member, Editorial Board member for AJA (honorarium declined)

### Disclosures

- The content of this presentation does not reflect the views of the Department of Veterans Affairs or the United States government.



### Patient-Centered Care in Audiology




(Montano, 2011)

### Self-Assessment Tools for Patient-Centered Care

- E.g., Client Oriented Scale of Improvement (COSI; Dillon et al., 1997), Glasgow Hearing Aid Benefit Profile (GHABP; Gatehouse, 1999)
- Pre-treatment
  - No (COSI)/Minimal (GHABP) indication of how patient is currently functioning in the nominated situations
- Post-treatment
  - Benefit and satisfaction measures
  - No indication of how they are doing with hearing aids in terms of fit/comfort, occlusion, etc.

### Purpose

- To develop a patient-specific self-report measure for auditory rehabilitation that obtained patients' nominated listening goals and assessment of self-perceptions regarding each listening goal to facilitate a tailored rehabilitation approach
- Current status (pre)/ post intervention
- Demonstrate validity and reliability of the measure (Long-term goal)

### Self-Identified Hearing Goals Questionnaire (SIHG)

- Nominate up to 3 goals
- Expands upon the COSI
  - Assesses 6 domains regarding each goal (pre/post)
  - Asks 5 additional questions if the patient has hearing aids (pre/post)
- Intended use
  - Adults undergoing any audiologic rehabilitation intervention

**Self-Identified Hearing Goals (SIHG)**

Name: \_\_\_\_\_  
 Last 4: \_\_\_\_\_  
 Today's Date: \_\_\_\_\_

**PLEASE READ THESE DIRECTIONS:**

On the next page(s), in the shaded box, please write down a hearing goal that you want help with (e.g., hearing my spouse at dinner). An example is shown to the right. Your hearing goals can be for any situation where you have difficulty hearing in or communicating with others. Please be as specific as possible about the places, people, and technologies (e.g., phone, television, and computer) that are difficult for you and write down **YOUR** goals that are most important to you. Answer the 6 questions for **each** of your hearing goals. Your goals will be discussed before and after you receive treatment for your hearing loss. Please write up to three goals that you want help with, writing one goal in each set of boxes.

Please circle where you would rank each item the scales provided.

**Example:**  
 I would like to understand my daughter Sally better when I'm talking to her on the phone.

1. How well do you do in this situation?  
 0 1 2 3 4 5 6 7 8 9 10  
 Not at all Moderately Extremely

2. How confident are you that you can manage this situation with ease?  
 0 1 2 3 4 5 6 7 8 9 10  
 Not at all Moderately Extremely

3. How much effort do you have to put forth in this situation?  
 0 1 2 3 4 5 6 7 8 9 10  
 None Moderate Extreme

4. How motivated are you to improve this situation?  
 0 1 2 3 4 5 6 7 8 9 10  
 Not at all Moderately Extremely

5. How much help from others do you need in this situation?  
 0 1 2 3 4 5 6 7 8 9 10  
 None Moderate Extreme

6. How often are you in this situation? (Circle one)  
 Rarely Quarterly Bi-monthly Monthly Weekly Daily

### Pre-SIHG

Write down **YOUR** #1 Hearing Goal:

1. How well do you do in this situation?  
 0 1 2 3 4 5 6 7 8 9 10  
 Not at all Moderately Extremely
2. How confident are you that you can manage this situation with ease?  
 0 1 2 3 4 5 6 7 8 9 10  
 Not at all Moderately Extremely
3. How much effort do you have to put forth in this situation?  
 0 1 2 3 4 5 6 7 8 9 10  
 None Moderate Extreme
4. How motivated are you to improve this situation?  
 0 1 2 3 4 5 6 7 8 9 10  
 Not at all Moderately Extremely
5. How much help from others do you need in this situation?  
 0 1 2 3 4 5 6 7 8 9 10  
 None Moderate Extreme
6. How often are you in this situation? (Circle one)  
 Rarely Quarterly Bimonthly Monthly Weekly Daily

Current ability

Self-efficacy

Effort

Motivation

Social Support

Social Frequency

### Post-SIHG

Write down **YOUR** #1 Hearing Goal:

1. How satisfactorily do you do in this situation?  
 0 1 2 3 4 5 6 7 8 9 10  
 Not at all Moderately Extremely
2. How confident are you that you can manage this situation with ease?  
 0 1 2 3 4 5 6 7 8 9 10  
 Not at all Moderately Extremely
3. How much effort do you have to put forth in this situation?  
 0 1 2 3 4 5 6 7 8 9 10  
 None Moderate Extreme
4. Compared to before your clinic visit, how much benefit did you receive from your treatment in this situation?  
 0 1 2 3 4 5 6 7 8 9 10  
 None Moderate Extreme
5. How much help from others do you need in this situation?  
 0 1 2 3 4 5 6 7 8 9 10  
 None Moderate Extreme
6. How often are you in this situation? (Circle one)  
 Rarely Quarterly Bimonthly Monthly Weekly Daily

Satisfactory ability

Self-efficacy

Effort

Benefit

Social Support

Social Frequency

**If you are a current user of hearing aids, then please answer the five questions below.**

1. How long have you worn hearing aids prior to today's visit? (Include ALL hearing aids) <input type="checkbox"/> Never <input type="checkbox"/> Less than 6 months <input type="checkbox"/> 1-2 years <input type="checkbox"/> 3-5 years <input type="checkbox"/> Over 5 years	2. How many hours per day do you wear your hearing aids? <input type="checkbox"/> Less than 2 hours <input type="checkbox"/> 2-4 hours <input type="checkbox"/> 5-8 hours <input type="checkbox"/> 9-12 hours <input type="checkbox"/> 12+ hours	3. How pleased are you with the sound quality of your own voice through the hearing aids? <input type="checkbox"/> Not at all <input type="checkbox"/> Slightly <input type="checkbox"/> Neutral <input type="checkbox"/> Moderately <input type="checkbox"/> Completely
<b>Lifetime hearing aid experience</b>		
<b>Use</b>		
<b>Own voice</b>		
<b>Sound quality</b>		
4. How pleased are you with the overall sound quality of your hearing aids? <input type="checkbox"/> Not at All <input type="checkbox"/> Slightly <input type="checkbox"/> Neutral <input type="checkbox"/> Moderately <input type="checkbox"/> Completely	5. Are your hearing aids physically comfortable in your ears? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, then please explain in the space provided below.	<b>Comfort</b>

### Inclusion Criteria

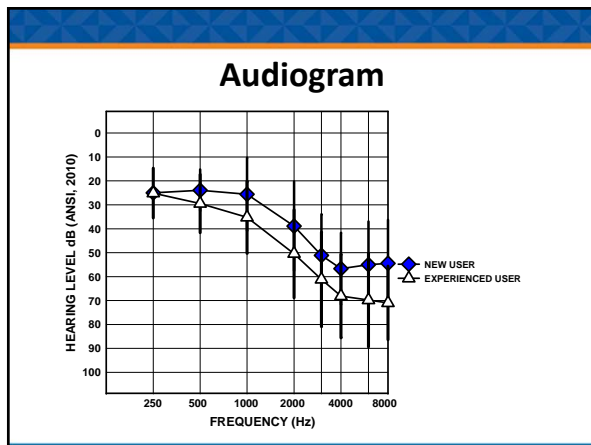
- Veterans (18-89 years of age)
- Healthy subjects
  - No dementia, blindness, etc.
- Sensorineural hearing loss
- Must have amplification that was meeting NAL-NL2 targets ( $\pm 5$  dB)

### Participants

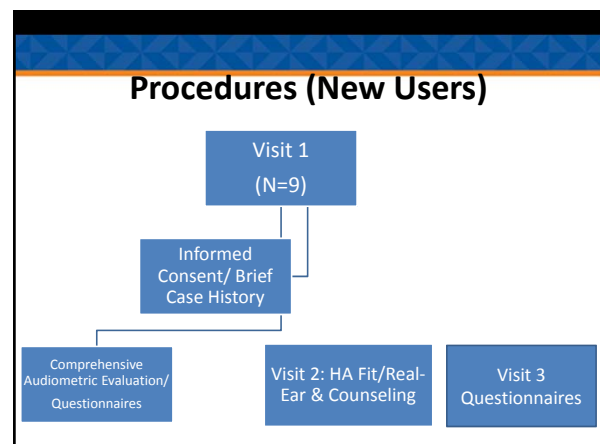
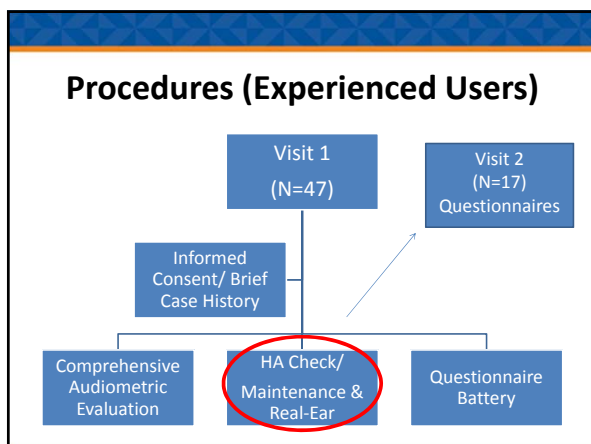
	Experienced Users	New Users
N	47	9
Age (in years)	71.9 (5.4)	63.6 (16.4)
Gender (# male)	46	9

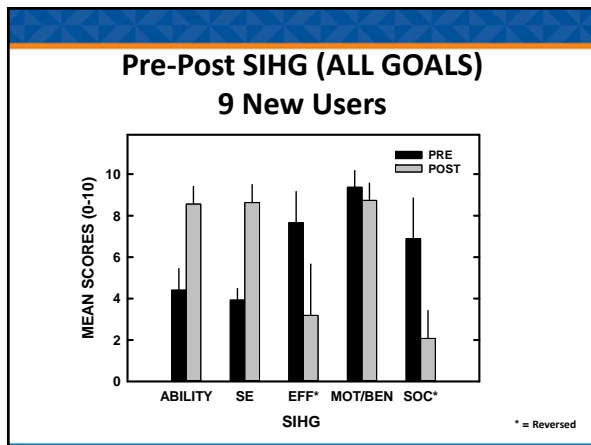
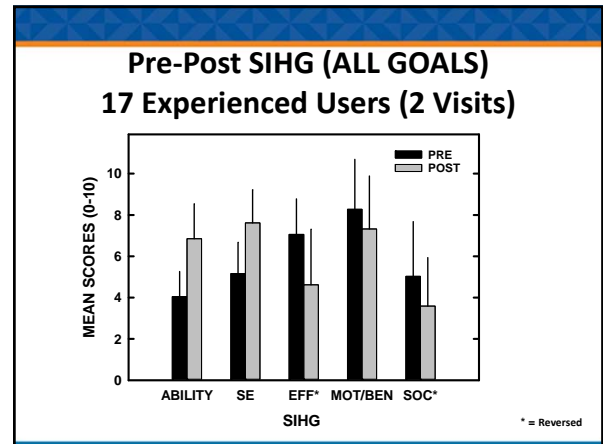
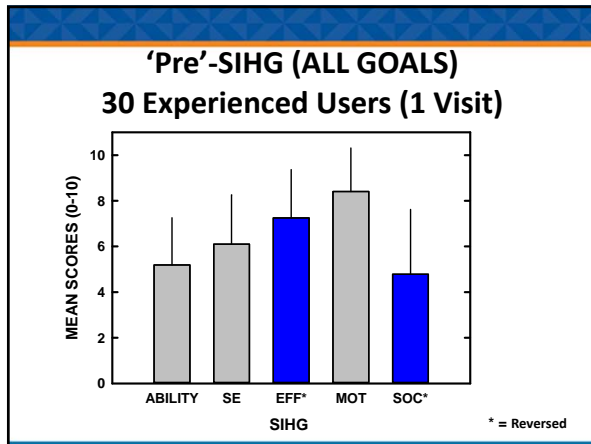
### Hearing Aids

	Experienced	New
Hearing Aid Type (N)		
BTE	20	2
RIC	23	6
ITE/HS/CIC	1	1
Remote control/Phone App	21	2
Accessories for TV and/or phone	4	1
Remote microphone technology	0	0
Communication strategies training	0	0



- ### Questionnaires
- Listening Self-Efficacy Questionnaire (LSEQ)
  - Speech, Spatial and Qualities of Hearing Questionnaire (SSQ12)
  - Abbreviated Profile of Hearing Aid Benefit (AHPAB)
  - Device Oriented Subjective Outcome Scale (DOSQ form B)
  - Satisfaction with Amplification in Daily Life (SADL)
  - Hearing Handicap Inventory for Adults/Elderly (HHIA/E)
  - International Outcomes Inventory for Hearing Aids (IOI-HA)





### Standard Outcomes

Questionnaire	% Within or Exceeded Norms
SADL	100
IOI-HA	96
DOSO form B	94
HHIA/E	80
<b>SSQ12</b>	<b>68</b>
<b>LSEQ</b>	<b>56</b>

- ### Interim Conclusions
- 64% experienced users had hearing aids that met target and who declined adjustments
    - Average SIHG responses suggest they could benefit from AR to improve goals
  - 36% of experienced users needed adjustments to meet target
    - Adjustments plus counseling improved SIHG responses
    - Some could use additional tailored AR
  - New users had significant improvement and high outcomes in all domains
  - Majority of new and experienced users would have met normative data on standardized outcome measures

- ### Case Study (Experienced User)
- Goals
    - (1) Understand grandson on telephone
    - (2) Hear voices from a short distance at church
      - Re-fit hearing aids
      - Facilitative strategies
      - Telephone tactics

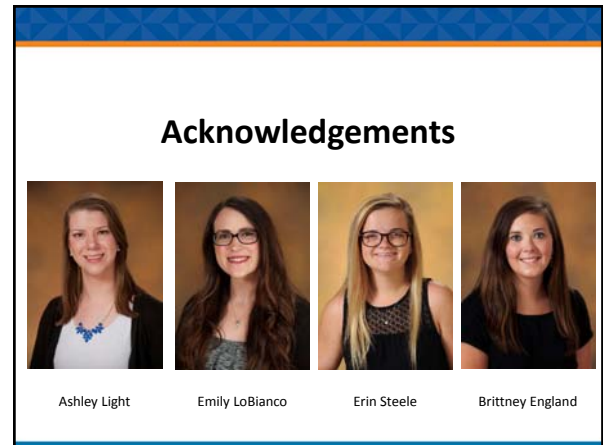
### Case Study

Understand grandson on telephone	
Pre-SIHG	Post-SIHG
1. Current ability: 1	1. Satisfactory ability: 9
2. Self-efficacy: 3	2. Self-efficacy: 9
3. Effort: 10	3. Effort: 2
4. Motivation: 10	4. Benefit: 10
5. Social support: 7	5. Social support: 0
6. Social frequency: daily	6. Social frequency: daily


### Case Study

Hear voices from a short distance at church	
Pre-SIHG	Post-SIHG
1. Current ability: 3	1. Satisfactory ability: 10
2. Self-efficacy: 6	2. Self-efficacy: 10
3. Effort: 10	3. Effort: 0
4. Motivation: 10	4. Benefit: 10
5. Social support: 9	5. Social support: 0
6. Social frequency: weekly	6. Social frequency: weekly


- ### Clinical Implication
- Stresses the importance of follow-ups
  - Focus on better tailoring our audiologic rehabilitation plan to the individual
    - Accomplished through looking at self-nominated goals pre- vs post- intervention



### Thank you



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