Assessing Hearing Aid Candidacy and Managing Hearing Loss

Therese C. Walden, AuD and David W. Hawkins, PhD
eAudiology Web Seminar
February 2012

Assessing Hearing Aid Candidacy: Issues to Consider, Beyond the Audiogram

Therese C. Walden, AuD
February 2012

Goals of Presentation

• Discuss patient needs/expectations; traditional tests; non-traditional tests to maximize treatment efficacy.

• Overview of peripheral, suprathreshold and central effects on hearing.

• Review development of the Everyday Listening Assessment.
Disclaimer

The views expressed in this presentation are those of the author and do not necessarily reflect the official policy or position of the Department of the Navy, the Department of Defense nor the US Government.

Patient variables/test conditions

- Needs/Expectations
- Personality Variables
  - Pt's flexibility
- Hearing Loss
  - Acuity, SNR and cognitive factors
  - Experience, Learning, Acclimatization
- Pre and Post-fitting counseling/assessment
  - How much and when
- Laboratory Test Conditions
- Dependent measures (lab vs. field)
  - How do these relate?
- Fitting Strategy
- Hearing Aid (signal processing)
  - Flexibility of the HA
- Acoustic Environment
  - Variability

Measures of unaided threshold sensitivity are not good predictors of success:

- Research in this area (Gatehouse, Humes, Cox, Walden, Abrams, etc.) has indicated that traditional audiologic measures (pure tones, word rec in quiet, etc.) do not predict success, however..
Other studies (Gatehouse, Humes, et al., Cox, et al., etc.), suggest:
- patient attitudes
- emotions
- personality,
- cognitive ability
- types of support systems and
daily listening conditions of the
patient are among
the strongest
determinants of
success with hearing
aids.

Our clinical experience
suggests that these
cognitive ability;
daily listening
conditions are critical
factors in patient success,
especially in the older
patient – and these are
not predictable from
traditional audiometric
measures.

Pure tones, speech in quiet and face-
to-face discussions do little to
convince the patient of the extent of
the problem. How do we fix that?

Patient Biases...

- Essential first ingredient in a successful hearing aid
fitting: the patient’s belief that he or she can benefit
from amplification (this differs from many other
treatment: antibiotics, statins, etc. – where pt belief
is not critical – the meds either work or they don’t!).

- A common belief by patients is that the problem is
external to them – others mumble, too much BGN,
etc.

- Belief that the cons will outweigh the pros of hearing
aid use (unsuccessful family members/friends, etc.)

How do we help the patient to understand what it
is they are missing?

- Can’t stop at pure
tones or word
recognition in quiet...

  - Simulations under phones/in
    sound field/HA test room:
    - Presentation of speech (live or
      recorded) in quiet at multiple
      levels
    - Presentation of speech in
      noise (live or recorded) at
      various levels/in various
      environments
    - Play samples pre-recorded
      through real-ear systems

  It’s not just about
making it louder:
distinction between
audibility and
distortion
Assessing Hearing Aid Candidacy and Managing Hearing Loss
February 15, 2012

---

Peripheral
Supra-threshold
Central (Cognitive)

---

**Audibility**

‘…mere detection of sound will not ensure recognition or understanding….without detection at all, correct identification is greatly diminished...’

(Pascoe Sem in Hear, 1980)

Accounting for degree of threshold sensitivity loss only, does not account for suprathreshold distortion effects.

(Walden, et. al., JSHR, 1981)

---

**Distortion**

- Lyregaard (1982)
  - Subjects with similar degrees of threshold sensitivity loss will present with varying, and not predictable, SNR loss.

- Killion (Seminars in Hearing, 2002) proposed ‘SNR loss’ as measure of this distortion factor:
  - **Audibility** - Threshold loss
  - **Channel Capacity** - percentage of audible speech cues that are accurately represented to the brain
Assessing Hearing Aid Candidacy and Managing Hearing Loss
February 15, 2012

45 year old: SNR = 1.5 BIL, 2.5 RE, 1.5 LE

75 year old: SNR = 4.5 BIL, 8.5 RE, 10.5 LE
Unaided suprathreshold measures of auditory function – not typically (or routinely) measured clinically – what can these tell us beyond the traditional audiogram about candidacy?

- Loudness discomfort
- Noise tolerance
- Temporal resolution
- Frequency resolution

Loudness Discomfort

- (Blamey and Martin JAAA, 2009): Noted that loudness satisfaction for environmental sounds may not be the same as overall HA satisfaction.
- Overall satisfaction is dependent on other factors such as improved intelligibility of speech, naturalness of speech, etc.

- (Kochkin Hear Rev 2002): Reported that 83% of hearing aid users want more loudness for soft sounds and 81% want more control of loud sounds.

Loudness Discomfort

- Amplification with digital noise reduction and the perception of annoying and aversive sounds
- Perception of annoyance and aversiveness increased with tx.
- However, annoyance and aversiveness when amplified was close to levels reported by those with normal hearing.
- Palmer, et. al. (2006) Trends in Amplification
Assessing Hearing Aid Candidacy and Managing Hearing Loss
February 15, 2012

Clinical Utility - Loudness Comfort

- Real-ear measures (objective): ensure MPO is checked prior to sending patient out (Gus’ strategy: set gain for 50-55dB input; set compression for 75-80dB)
- At f/u appt (subjective input)
  - APHAB (Cox)
  - PAL (Palmer and Mueller) – Profile of Aided Loudness
    - Comparison of unaided and aided ratings of loudness for soft, average and loud sounds (and the patient rates how ‘ok’ they are with that rating)
    - Barking dog, lawn mower, microwave buzzer, etc.

Noise Tolerance

- Acceptable noise level to predict hearing aid use
  (Nabelek, et. al.) JAAA, 2006
- ANL – measures pt’s acceptance/tolerance for background noise while listening to speech
- Results indicated significant differences between full time users and part-time and non-users: full time users had lower ANLs – accepted more BGN when listening to running speech.
- Could predict HA success with 85% accuracy
Assessing Hearing Aid Candidacy and Managing Hearing Loss  
February 15, 2012

Noise Tolerance

- Taylor, B, Hear J (2008)
  - Results indicated that ANL correlated with outcome on the IOI-HA such that those subjects with lower ANL (more tolerance for running noise) scored better on the IOI-HA
  - Results in better outcomes for the patient.

- QSIN: SNR loss measure – used as pre-fit info for HA or for general baseline
- ANL: scored from low to high (poorer)
- PPT (PPDIS – G. Saunders): HINT for perceived performance then actual performance – score is discrepancy difference, results in over and under-estimators

Bottom line: No correlation among QSIN, ANL and PPT – this is good (only found correlation between actual HINT and QSIN score) – same for our recent data – wouldn’t do both

Clinical Utility – Noise Tolerance

- Chicken or the egg? Does ‘natural’ tolerance (as measured pre-treatment) position patients for better HA success? Or does more full-time use of HAs improve tolerance?
- Per Mueller article (links in article), to get started, can easily obtain the CD – or can use own noise/speech samples
- Strategy? More aggressive signal processing (Directional microphones and DNR)
Temporal resolution/processing

- Characterized by rapid changes in intensity and frequency over time; accurate processing of these temporal fluctuations is important for speech perception.
- Evaluated with:
  - Gap detection: smallest quiet interval in a background stimulus
  - Gap discrimination: change in duration of quiet interval

Temporal Resolution

- Temporal discrimination ability lessens with age - especially for more complex signals; older listeners have more difficulty processing temporal information between signals of different frequency characteristics compared with young and middle aged listeners (speech gets muddy...)

Clinical Utility - Temporal Resolution

- Although gap detection (in various forms) has been around a long time, not used clinically – mostly used for APD testing (most recently used in our Blast study and there were sig diff between controls and blast-exposed subjects)
- Feasible for routine clinical use for candidacy? Probably not at this time.
**Frequency Resolution**

  - Previous studies indicated no increase in speech intelligibility with increased loudness (esp for HFHL) - studies looked at speech in quiet - perhaps the listeners were already maxed out.
  - However, in noise (multi-talker babble) - for all hearing losses tested - there was increased word rec. measured with increases in loudness

**Frequency Resolution: Dead regions**

- Identifying dead regions in the cochlea: psychophysical tuning curves and tone detection in threshold-equalizing noise.
  - Subjects with steeply sloping moderate-to-severe high-frequency hearing loss were tested with PTC and TEN to identify ears with high-frequency dead regions
  - In instances where the TEN and PTC results disagreed, the TEN results suggested the presence of dead regions whereas the PTC results did not

**Mackersie et al (2004) JAAA**

- In quiet and favorable SNR conditions, high-frequency amplification can be provided for patients with ‘measured’ dead regions falling at or above 2000 Hz (or when 4k Hz thresholds are 80 dB or less) – without deleterious effects.
- Subjects who met this criteria benefitted as much as patients without measured dead regions.
Cox et al (2011) *Ear Hear*

- 1/3rd of subjects with flat or sloping moderate to severe HL loss tested positive for at least one DR
- No evidence to support a reduction of high frequency gain in hearing aid fittings for these individuals
- Regardless of DR status, increasing high frequency audibility was beneficial overall

Clinical Utility - Frequency Resolution

- It appears that 'going after' the gain makes sense – especially in noise (more audibility)
- Hard to make these (DR) measurements – more derived measures as opposed to direct measures
- Use of frequency lowering algorithms.
- Worth the effort clinically?

Peripheral

Supra-threshold

Central (Cognitive)
Assessing Hearing Aid Candidacy and Managing Hearing Loss
February 15, 2012

L. Humes (2007) JAAA: Contributions of Audibility and Cognitive Factors to Benefit Provided by Amplified Speech in Older Adults

- Without spectral shaping to compensate for the loss of audibility in the high frequencies, older adults with impaired hearing exhibit poorer speech recognition compared to young.
- This is true even for relatively high speech presentation levels.
- When audibility is restored through at least 4KHz, individual differences in performance among the older listeners can no longer be attributed to hearing thresholds.

Can't just make things louder overall – need to tailor the response – for soft and loud inputs (real ear verification is mandatory to know these)!!

Humes, cont.

- Other factors: age, various cognitive measures, emerge as correlates with speech-understanding performance once audibility has been restored.
- These variables, alone or in combination, typically account for 30-50% of the variance in the speech-understanding performance of older adults with spectrally shaped speech.
- When the SNR is adjusted to equate performance levels in some reference condition, older adults typically required a better SNR than young normal-hearing adults to achieve a similar performance criterion.

Once shaping is completed and SNR is compensated for - still performance lags in older patients.

It’s not just the periphery...

Kricos (2007) Audiologic Management of Older Adults With Hearing Loss and Compromised Cognitive/Psychosocial Auditory Processing Capabilities

- Unique challenges faced by older adults with HL (beyond the periphery): higher level auditory processing of sounds may be compromised by changes in the central auditory system.
- Supra-threshold compromises in auditory processing at the central level:
  - Temporal processing (ability to process rapidly changing auditory information) and frequency resolution: greatest effects noted in presence of complex auditory signals (informational and energetic masking effects)
  - Allocation of resources – multi-tasking affected
Clinical research and experience suggest that getting patients to accept hearing aid use:

- Depends upon acceptance that hearing problems exist across a range of listening situations
- Depends upon the relevance of the listening situations to their daily living – they decide where they need help
- Depends upon 'optimism' that hearing aids/amplification can help in those situations.

ELA Study

1) What if we found a way to engage the patient immediately?

2) What if the sounds the patient heard during the eval made sense?

3) What if we used everyday sounds to help the patient estimate their problem?

Development of the Everyday Listening Assessment (ELA) - Validation Study

- Sound samples simulating a wide range of everyday listening situations presented at realistic (unaided) presentation level and through two conditions of amplification.
- Participants indicated their preferences for unamplified and amplified versions of these stimuli.
- For predictive use? Use as a counseling tool to encourage hearing aid use?
- To validate the task for these purposes, ELA preference ratings were related to hearing aid candidacy as determined by standard of care measures.
### Everyday Listening Situations (14)

- Listening to child in quiet
- Conversation with TV in background
- Talking in a restaurant
- Listening in large theater or sanctuary
- Listening in conference room or classroom
- At the movies
- Conversation at cocktail party
- Conversation in car with radio playing in background
- Dinner conversation
- Listening to child at play outdoors
- Conversation with someone in another room
- Listening to vocal music
- Listening to instrumental music
- Hearing the sounds of nature

### Characterized listening situations

- Each of the 14 everyday listening situations was described categorically by the panel in terms of five characteristics of sounds encountered in everyday living:
  - Signal source (child, woman, man)
  - Signal input level (50-80dBSPL)
  - Background noise (6 and 2-talker, machine, playground, traffic, music)
  - Signal-to-noise ratio (SNR): quiet and +10 to zero
  - Reverberation (moderate and high)

### Additional sound samples

- 7 additional samples were included in the listening task.
  - These supplemental samples received no additional signal processing (i.e., background noise, reverberation)

- 4 studio recordings of music
  - Instrumental rock, vocal rock, vocal country, classical violin

- 2 sound field recordings made in a typical living room by a single microphone positioned approximately 5 ft in front of the television loudspeaker
  - Male baseball play-by-play announcer, male television news announcer

- 1 live male talker in noisy cafeteria
Amplification of sound samples

• Each sound sample was recorded (processed) in 3 conditions through a ‘master’ hearing aid:
  ▫ no hearing aid (no gain) condition, i.e., only the effects of the microphone and recording equipment
  ▫ hearing aid set to mild gain
  ▫ hearing aid set to moderate gain

Female talker in quiet
Left Ear

* Listen to the recording under each option by touching the PLAY buttons below.

Play Option 1  Play Option 2  Play Option 3

* Listen to each option enough times to decide which one you prefer. Then choose by touching one of the PREFER buttons below.

Prefer Option 1  Prefer Option 2  Prefer Option 3

Caveats: Why the ELA?

• ELA was designed (initially) to motivate patients to accept a hearing aid prescription who might otherwise be uncertain regarding their hearing aid candidacy.
• For the purposes of the study, candidacy was defined as the attending audiologist’s decision to prescribe amplification for a patient (after testing and after discussions with patient).
Why would the ELA work?

• Seems intuitive that a patient’s preference for amplified sound would bear a predictive relationship with clinical decisions regarding candidacy.

• However, there are multiple considerations (as we’ve discussed) that factor into such determinations, such as patient needs, expectations, lifestyle, dexterity, cognitive abilities, cost, etc.

Study participants

• 48 adults, self-referred for hearing evaluation
• 26–85 years of age (mean = 60.6, SD = 16.4)
• 42 males and 6 females
• A wide range of hearing was represented in the sample (normal hearing to relatively severe hearing loss)
• None of the participants was wearing hearing aids or had worn hearing aids previously at the time of participation

Method

• Participants completed the ELA prior to the audioligic evaluation.

• Results of ELA not revealed to the attending audiologist and not provided to the participant.

• Results of audioligic eval and any treatment recommendations obtained from medical record.
Outcome of audiologic evaluation
- Amplification was not prescribed in either ear for 22/48 of the participants
- 20/48 participants were prescribed bilateral hearing aids
- 6/48 prescribed unilateral amplification
  - 4 participants with unilateral loss
  - 2 with asymmetric loss (aid prescribed for poorer ear)

Amplification prescribed for 46 of 96 ears.

Sample Participants
Assessing Hearing Aid Candidacy and Managing Hearing Loss  
February 15, 2012

Trends

- Less preference for amplification as the unaided presentation level increased.
- Results suggest that persons with normal or near-normal hearing sometimes prefer slightly louder levels than naturally occur in everyday listening environments
  - Suggests that preferences of mild gain for relatively soft environmental sounds may not be a good predictor of hearing aid candidacy.

Clinical Utility: ELA

- The ELA assesses preferences for sound samples that occur frequently in everyday listening; could provide some information re: pt's gain needs.
- Does not assess supra-threshold function (specifically)
- Is not presented bilaterally (but then, neither are pure tones and traditional word rec…)
- If 'preference' is not defined for the sound samples, patient will make determination…is that bad?

Clinical use of ELA (or other sound samples)

- Prior to audiology testing
  - Listening to everyday sounds is more realistic
  - Patient will likely identify some sounds that occur in their world
  - Provides some sense of 'gain' needs
  - Can determine 'preference', ask patient to make decisions based on loudness or understandability
  - Pure tones might make more sense

- Following audiology testing
  - May help patient understand the impact of the newly identified loss (from the audi) as it relates to everyday sounds
  - May help patient in decision-making process re: treatment
  - Can determine 'preference' based on outcome of audometric testing — perhaps focus on clarity, comfort, ease of listening

Other sources of calibrated sound samples? Internet, real-ear systems, programming software, iPad/tablets, MP3 players..
Assessing Hearing Aid Candidacy and Managing Hearing Loss
February 15, 2012

Take home message:
- Testing beyond the audiogram can help individualize the patient prior to the hearing aid selection/fitting/programming.
- Even if there is no billable code for a procedure, need to determine what long-term value more extensive testing can provide – may not need to do everything with everyone.
- The assessment is the beginning - managing the patient maximizes the treatment outcome for the individual patient – this is where David comes in!!

Q&A
To ask a question, please type your question into the chat box in the lower left corner of the screen and click on the “Send” button located right below the box

Managing Hearing Loss Beyond Hearing Aids
David B. Hawkins, PhD
Mayo Clinic Florida
Jacksonville, FL
Our Roots Go Back to the 1940s

- Grew out of a need to take care of the hearing-impaired soldiers returning from WWII
- We started as a rehabilitation field
- 50’s and 60’s we went tumor hunting
- 80’s brought us back with hearing aids, but we haven’t embraced rehabilitation in the true sense of the word, we’ve become more device dispensers

Why Not Just Dispense Devices and Let It Go At That?

Answer is Simple:

- The hearing aid is an imperfect prosthesis and does not “solve” the problems of most hearing-impaired persons and family members
- There are other things that we can do in addition to hearing aids to improve quality of life of the hearing-impaired adult

The Purpose of Aural Rehabilitation

To help deal with the problems that hearing aids are unable to address...

And there are many!
(Both Listening Problems and Interpersonal Problems)
Major Premise: We Shouldn’t Just “Dispense Hearing Aids” We Should Provide a Comprehensive Aural Rehabilitation Package

- You should guide your patients to:
  1. Better hearing acoustically
  2. Better understanding of hearing loss
  3. Better coping strategies
  4. Acceptance of hearing loss
  5. Better family and friends participation in dealing with hearing loss
- Good patient care is a package of all of the above, not just hearing aids!
- Standard HA dispensing only does #1

Define “Counseling-Based Group Adult Aural Rehabilitation”

- Not one-on-one
- Not just lipreading
- Not hearing aid orientation
- Not just demonstration of assistive listening devices
- So what is it?

Purposes of the AR Groups

- Create an environment for patients to describe their problems and frustrations
- Help patient better understand and accept their hearing loss
- Facilitate better coping behaviors and listening strategies
- Facilitate better feelings about themselves as people with hearing loss
Assessing Hearing Aid Candidacy and Managing Hearing Loss
February 15, 2012

Purposes of the AR Groups
• Help family members better understand hearing loss & its consequences
• Help family members develop better assistive behaviors
• Develop realistic expectations for their hearing capabilities
(Does it sound like you’re being a psychologist/counselor for the hearing impaired? Absolutely!! There’s more to aural rehabilitation than “fitting” a hearing aid!)

The Mayo Clinic Adult AR Program
Philosophy
• Group based, not individual
• 1½ hour session once/week for 4 weeks (Total=5 hrs) Lately 2 2-hour sessions.
• At 12:00 – 1:15 pm to minimize effect on audiology schedules & working patients and staying away from rush hour and dark driving
• Spouse or family member strongly encouraged to attend
• Want patients to start when HA decisions have been made, before or after fitting is ok

The Mayo Clinic Adult AR Program
Philosophy
• Ideal number of patients is about 10,15-20 total with family members
• Each session is ¼ information giving and ½ group discussions
• Include cost of program in the cost of the hearing aid/professional services package
The Mayo Clinic Adult AR Program

Philosophy

• Non-Mayo HA patient cost is $100
• Provide incentive to come as attendance reduces returns and generates good will & referrals
• Incentive is “1 year’s supply of batteries for one of your hearing aids” (our cost: $13)

The AR Group Sessions

• Developed 4 set modules for the four 1¼ hour sessions
• Each session has a detailed outline the audiologist can use
• With some individual variability, similar things are covered with each group
• Use PowerPoint, handouts, and videotapes to assist presentations

Overview of What is Covered in Each Session

Session 1
1. Purposes of the class and what will be covered (10 min)
2. Go over why something extra is needed over hearing aids alone
3. How the ear works (20 min) (PowerPoint Presentation) (Examples)
A Brief Tour Through the Ear

The Most Amazing Sensory Organ in Your Body

Inside the Cochlea: The Organ of Corti

Hair Cells
Assessing Hearing Aid Candidacy and Managing Hearing Loss
February 15, 2012

Inside the Organ of Corti: Inner and Outer Hair Cells with Cilia on Top of Each

Bundle of Cilia (200 On Top of Each of 12000 Outer Hair Cells and 4000 Inner Hair Cells)

Damaged Cilia Resulting in Hearing Loss
Overview of What is Covered in Each Session

Session 1

3. Discussion: Situations your hearing creates problems (30 min)
   • Write them on a board
   • Ask if others experience it
   • Creates common bond, family members are amazed at how many problems and that it is not just them
   • Usually generate 20-25 problem areas
   • Summarize by categorizing them, e.g. background noise, distance, acoustics, speaker problems, etc.

Overview of What is Covered in Each Session

Session 1

4. Discussion: Problems created for family members (15 min)
   • Family members make list of problems and difficulties of living with a person with hearing loss
   • Allows family members to describe their frustrations
   • Allows the hearing-impaired person to understand the difficulties that their hearing loss can cause others
   • “When a person has a hearing loss the family has a hearing problem”
Session 2

1. Understanding your hearing test and what it means (30 min)
   - Use common terms, not “frequency” and “decibels”
   - Emphasize what speech sounds will be missed
   - Discuss effect of poor word understanding
   - What a hearing aid will try to do (Example)

Session 2

2. Causes of hearing loss (15 min)
   - Discuss only major ones
   - Noise exposure, presbycusis, hereditary loss, etc.

3. Discussion: Factors that cause you to not understand: things about the hearing impaired person, the speaker, and the environment (30 min)
   - Patients generate the list, write them on the board
   - If they leave any off, I will add them in the end
Session 3

1. Overview of speechreading (15 min)
   - Emphasize that it helps, but you can’t get everything through visual cues
   - Demonstrate how many sounds can’t be seen and some look alike
   - Show how context and body language helps
   - Emphasize paying attention, getting the talker to look at you, and try to take in all information

Session 3

2. Discussion: Strategies to hear better (60 min)
   - What do you do when you can’t hear?
     - They generate list, things like “pretend to hear,” “ask to repeat,” “leave the room” (How you feel?)
     - Give a list of strategies and discuss
       - What the listener can do
       - What the speaker can do (discuss “clear speech”)
       - Repair strategies (Repeat vs. Rephrase)

Session 3

- Emphasize that failure to hear is always due to something about the listener, the speaker, the environment or a combination
- So you must analyze what caused you to not hear and decide what you can do to change it and make it better to hear
- Gallaudet videotapes on “Right Way – Wrong Way” -- Examples
Video Scene 10

Session 4

1. Discussion: Strategies to hear better (60 min)
   - Finish “Right Way/Wrong Way”
   - Assertive, aggressive, passive behaviors
   - Getting others to cooperate to help you hear better
2. Restaurant exercise
3. Summary Handouts
4. Course evaluation

Patient Evaluation of the Mayo Clinic
Adult AR Groups
Assessing Hearing Aid Candidacy and Managing Hearing Loss
February 15, 2012

Overall Rating of Mayo AR Group
N=721

<table>
<thead>
<tr>
<th>Rating</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>0%</td>
</tr>
<tr>
<td>3</td>
<td>2%</td>
</tr>
<tr>
<td>4</td>
<td>2%</td>
</tr>
<tr>
<td>5</td>
<td>12%</td>
</tr>
<tr>
<td>6</td>
<td>84%</td>
</tr>
</tbody>
</table>

Mean Rating = 5.74
(Responses Obtained Anonymously)

Rating of Different Parts of the AR Program

As a result of this class my understanding of hearing loss and the problems it creates:
1. Is no different 1%
2. Increased a little 4%
3. Increased a moderate amount 25%
4. Increased a lot 70%
N=721
As a result of this class my ability to deal with hearing loss and the problems it creates:
1. Is no different 1%
2. Increased a little bit 9%
3. Increased a moderate amount 33%
4. Increased a lot 57%

Examples of Responses to the Question: “What is the single most important thing you are taking away from the ‘Managing Your Hearing Loss’ Course?”

- “Understanding how to communicate with others”
- “Knowing the limitations of my hearing and my aids to correct hearing loss”
- “Don’t expect the impossible but HAs can help”
- “The realization that my HL is just another chapter in my life”
- “Understanding that I am not alone in many of the situations that I have problems”

- “Learning how to work myself to correct poor hearing situations”
- “How to manage my hearing loss better”
- “That hearing aids do not fully correct hearing loss. This will help me in speaking to my wife. It has really helped with my attitude and patience. It was a great learning experience. I kidded my wife that I was going to sensitivity training and it was.”
- “Communicating with others, speaking up when I don’t hear, techniques to living a better life socially.”
- “Things to do to better handle the loss of hearing.”
- “Knowing I’m not alone with difficulty in living with a hearing impaired person.”
“Understanding my HL problems and sharing with my wife the difficult problems”
“Understanding proper attitude in using my aid”
“To be more assertive”
“The knowledge that there are things I can do to improve communication with my husband who is hearing impaired”
“A deeper appreciation of the difficulty resulting from the hearing loss and ways to improve situations”
“Specific coping mechanisms for you and others”
“Hard to say. I left each session with much to think about”
“Understanding how different situations present different problems (and their solutions) to a hearing impaired person”

“I have come from being afraid of my future to the understanding that I will be able to cope. Thank you.”
“This was time well spent. I believe it should be required for hearing aid patients.”
“This course made me more aware of the difficulties my husband faces with his hearing loss. Hopefully I will be more patient and use better communication skills with him”
“Wish I had done this years ago. I am so glad that my spouse attended also.”
“The support above and beyond the fitted hearing aid is very valuable”
“All who have hearing loss should take this course”
“I thoroughly enjoyed the classes! I came in with hardly any knowledge of hearing loss and left with a greater understanding overall. Thank you for a wonderful experience.”

“That my hearing loss can be handled and I will adapt to it”
“I can ask my friends and family to make some adjustments that will assist me. The information was validating for me.”
“All the information, but especially the need to be more assertive”
“That it is ‘doable’”
“Thank you for the opportunity to attend this course. Most helpful”
“Be honest and let people know you have difficulty hearing”
“How to handle hearing loss”
“Feeling comfortable with my hearing loss and my new aid”
• “That I can manage it. I can wear these hearing aids. I can tell people “I’m hard of hearing.” So many interesting important things for me to take away with. I was like a sponge.”
• “I am not alone.”
• “It’s not just his problem”
• “I acquired a confidence in my ability to be proactive in managing situations. Also - it was fun to laugh with other new hearing aid wearers!”
• “Everyone has trouble adjusting...do not become frustrated!”
• “To be open about admitting hearing loss and finding ways to handle it”
• “Thinking ahead and planning a strategy to better communicate”

• “Knowing that others have the same problem”
• “Learning not to expect perfection”
• “Both the hard of hearing person and the hearing person can modify behavior to help the one with hearing loss”
• “Assertive/humor/cool it/relax”
• “That both parties (hearing impaired and spouse) have responsibilities”
• “Do not expect the hearing aid to be perfect. The person must accept it with a positive approach.”
• “What my spouse learned”
• “The many options to help me hear better...being assertive and suggesting the positive ways a speaker can help, etc.”

• “How to learn to live with hearing loss and cope with various situations”
• “That other people are having problems also --not just me. I was beginning to think I was a slow learner.”
• “Be patient with others. No need to apologize for having hearing aids. Teach others about your problem”
• “Don’t be afraid to tell others I need help understanding”
• “That others have the same problems I have”
• “I felt guilty about my hearing loss - now I do not”
• “I can do it!”
• “Your responsibility to the other person in a conversation. Listening is tough and requires work”
Assessing Hearing Aid Candidacy and Managing Hearing Loss
February 15, 2012

• “The group setting was very helpful. Since having hearing aids is new, it was good to hear what other people experience with hearing aids and hearing loss.”
• “Probably the appreciation that the other members of the class have the same problems and solutions that I have”
• “Acceptance of hearing loss as something you cannot change but can manage”
• “I feel better about myself”
• “My problems of adjustment are not uncommon”
• “How to be an assertive spouse, rather than passive or aggressive”
• “More confidence”

• “Better understanding of what the hearing impaired person is experiencing”
• “Identifying the sources of difficulty: you, environment, speaker and means of attacking the problem”
• “A better understanding of hearing loss and how to compensate”
• “Better understanding of my problem and how to cope”
• “Information given to my spouse. It has improved the situation at home”
• “The importance of speaking directly to my husband and to be sure I have his attention”
• “How to listen better and understand”
• “Demystifying hearing loss: biology – symptoms – dealing with it”
• “Not to be ashamed of my hearing loss”

Other Written Comments by Patients in MCJ Adult AR Program

• “What Was Most Helpful?”
  50% of the comments specifically mentioned “Strategies to Hear Better”

• Common Response Under “Other Comments?”:
  “Thought it would be boring, didn’t really want to come, but it was terrific, very helpful, great for my spouse”
Revealing Written Comment
By A Spouse

“Being the spouse of a hearing aid user of many years we wondered what a class could do for us that we did not already know. We soon learned starting with the very first session. The classes were great and we are so glad we came!”

Important Point: Not just new hearing aid users can benefit from AR groups. (But it is harder to convince them to attend.)

Important Finding:
AR Group Members Almost Never Return Their Hearing Aids

- Our return rate at Mayo Clinic Jacksonville for group members is less than 0.5%, non-group members is 7%
- Northern & Beyer (1999): 3% vs 9%
- Since you lose $$ on returns, group program pays for itself easily
- But could be those who sign up for groups are more committed to the process of rehabilitation

What Knowledge Do You Need to Conduct AR Groups?

- Hearing aid dispensing experience
- Knowing what aids can & can’t do
- Knowledge of the emotional reactions to hearing loss and how they affect personal relationships
- Strategies for how to hear better
Most Common Excuses For Not Doing Rehab Groups

• We don’t have the time in our setting!
  • I don’t buy that….it takes a commitment of a total of 1½ hours/week for one person (me at Mayo)

• Nobody would come if we offered it!
  • Then you’re not offering an incentive for the patients to come

• Or the personality of the staff is not interested in having this type of interaction

What Personal Characteristics Are Needed to Conduct AR Groups?

• Comfortable with people and being in front of people

• Sense of humor

• Ability to communicate in language patients can understand

• Ability to facilitate discussion among patients, not just “teaching” and giving information out

Why Don’t More Audiologists Have AR Groups?

• Don’t know what to do… stereotype is that it’s boring and focuses on lipreading or it’s just hearing aid orientation

• Think the patients wouldn’t come

• Think it is not feasible financially

• See hearing aids as the end point of their involvement
Why Should You Want to Have AR Groups?

1. Valuable & appreciated patient service
2. Makes your clinic & you unique
3. Word of mouth referrals increase
4. Hearing aid return rate for group members goes to near 0%
5. Gets you out from behind instruments and equipment
6. Get to know the patients better

7. Positively affect people’s lives, as much or more than with hearing aids
8. Adds a new dimension to your job
9. Takes you back to why you probably entered this field: “To help people with hearing loss”
10. Don’t just “dispense hearing aids,” be an audiologist in the truest sense
11. If you do it well, it’s FUN!

If You Would Like A CD with All of My Materials, Detailed Outline of What I Do in the 4 Sessions

• Email me at: Hawkins.David@mayo.edu

(Provided at No Charge)
Q&A

To ask a question, please type your question into the chat box in the lower left corner of the screen and click on the “Send” button located right below the box.