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Providing Structure to the Subjective Hearing Aid Evaluation

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Providing Structure to the Subjective Hearing Aid Evaluation

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The Outcome of a Hearing Aid Fitting:

- ▶ We decide on the criteria, they pay the bill.



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Subjective Assessment

- ▶ As an Outcome Measure
 - ▶ COSI, HHIE, APHAB, HAPI
- ▶ As a Fitting Tool
 - ▶ Initial Fitting, Follow-up

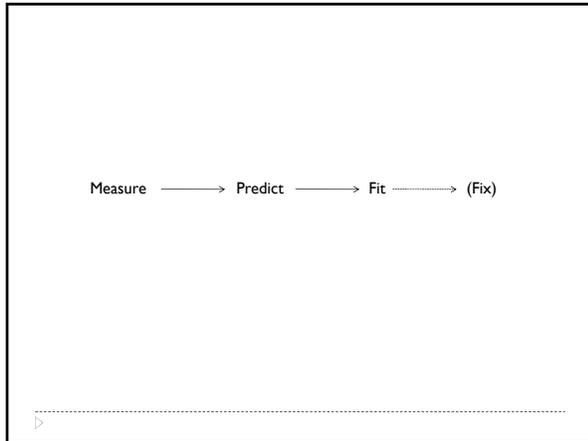


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Lessons from Last Seminar:

(Does the Fitting Satisfy the Patient?)

- ▶ Whacky Model





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Lessons from Last Seminar:
(Does the Fitting Satisfy the Patient?)

- ▶ Whacky Model
- ▶ Satisfaction Driven by More Than Outcome

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Satisfaction:

- ▶ Outcome
- ▶ Interpersonal Aspect
- ▶ Care Environment

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Lessons from Last Seminar:
(Does the Fitting Satisfy the Patient?)

- ▶ Whacky Model
- ▶ Satisfaction Driven by More Than Outcome
- ▶ Multiple Influences on Sound Perception

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How They Perceive Sound

How They React to Their Perception

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graph LR; A[Sensory Input] --> B[Sensory Filter]; B --> C[Cognitive Filter]; C --> D[Subjective Assessment]
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Perceptual Filter Model
(Bech & Zacharov, 2006)

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How do all of these influences come together
for any given patient?

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Lessons from Last Seminar:
(Does the Fitting Satisfy the Patient?)

- ▶ Whacky Model
- ▶ Satisfaction Driven by More Than Outcome
- ▶ Multiple Influences on Sound Perception
- ▶ Aesthetics of Sound Matter

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Factors correlated with Overall Satisfaction

1. Overall benefit (.71)
2. Clarity of sound (.70)
3. Value (*performance of the hearing aid relative to price*) (.68)
4. Natural sounding (.66)
5. Reliability of the hearing aid (.65)
6. Richness or fidelity of sound (.65)
7. Use in noisy situations (.63)
8. Ability to hear in small groups (.63)
9. Comfort with loud sounds (.60)
10. Sound of voice (occlusion) (.60)

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Kochkin (2010) MarkeTrak VIII

What can affect Aesthetics?

- ▶ Physical Fit
- ▶ Spectral Balance
- ▶ Loudness
- ▶ Dynamic Response of the Hearing Aids
- ▶ Behavior of the Automatics

Using Subjective Assessment of Sound

What is the Goal?

Measure → Predict → Fit → (Fix)

Measure → Predict → Initial Fitting → Customized Fitting

- Less emphasis on prediction
- More input from patient
- Changing negative to a positive: Proactive process

▶

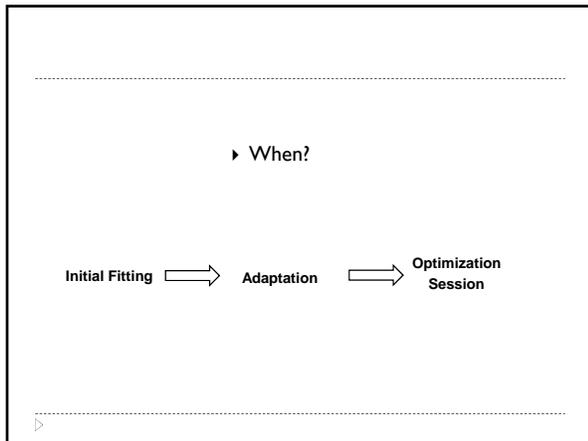
▶ Not an Exact Science

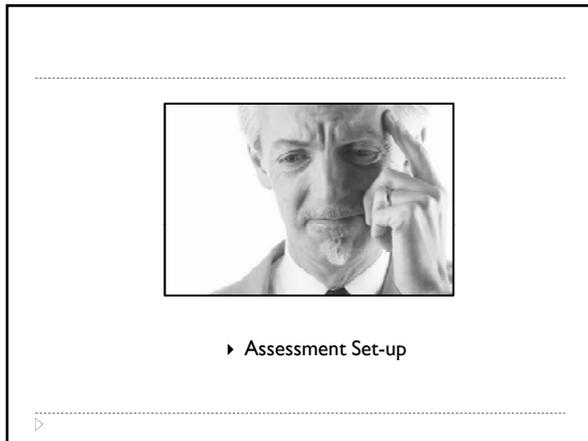


▶

▶ When?

▶







Reception

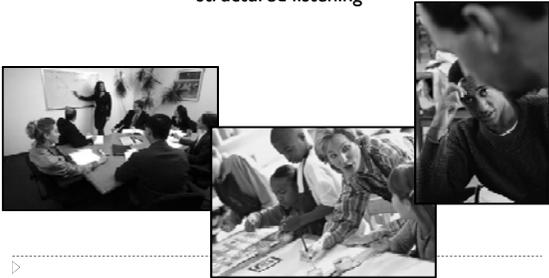
Dialog in Busy Street

TV News

Snack Bar

▶ Selecting Sounds

▶ Global speech in noise issues hard to replicate during structured listening



Make Your Vote!



▶ Simple A-B choice best way to test

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▶ **“Clear and Pleasant”**

(unless something else seems to matter to the patient)

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▶

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▶ **Still a role for debriefing & traditional fine tuning**

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▶

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▶ **Control the Process**

(remember the goal)

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▶

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The Time Issue

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Measure → Predict → Fit → (Fix)

Measure → Predict → Initial Fitting → Customized Fitting

- Less emphasis on prediction
- More input from patient
- Changing negative to a positive: Proactive process

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