

Improving Patient Memory Recall

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Research

Investigate literature regarding patient memory recall or retention.

Pt's memory appeared to be limited regarding important hearing aid topics and hearing aid orientation information.

Review of Literature

Various percentages of memory recall

- Specifically the authors' reiterate research that demonstrates patients' ability to retain target information by their health care provider is often limited, with an astounding 40-80% of information forgotten (Kessles, 2003; Kortman, 1992; Ley, 1989; McGuire, 1996; Shapiro, Boggs, Mclamed, and Graham-Pole, 1992).
- 50% of what is remembered is recalled incorrectly.

Review of Literature

All of the articles revealed one common theme;
no patient remembers everything.

Hearing Aid Orientation (HAO) Background

HAO have been routine within the field of audiology since World War II (WWII).

A HAO is an important area within the scope of practice for audiologists to educate patients in the use and care of hearing aids.

It may be the only opportunity for patients to receive information regarding hearing aid care and use, troubleshooting techniques, realistic expectations and possibly some aural rehabilitation techniques.

After the HAO patients must rely on their memory and written information about their hearing aids to utilize them effectively.

Hearing Aid Orientation (HAO) Background

Furthermore, HAO's have been around since WWII and still lack systematic research regarding patients' ability to learn and remember important hearing aid information (American Speech-Language-Hearing Association, 2004 and Margolis, 2004).

What is the Goal of your HAO?

Provide hearing impaired patients with the knowledge to proceed toward a life of using amplification within their daily routine.

Do you feel confident when every patient leaves your clinic?

Two research Articles formed the basis of this investigation

Reese, J. L., Smith, S. L. (2006). Recall of hearing aid orientation content by first-time hearing aid users. *Seminars in Hearing*, 27, 337-343.

Reese, J.L., Hnath-Chisolm, T. (2005). Recognition of hearing aid orientation content by first-time users. *American Journal of Audiology*, 14 94-104.

Additional research was reviewed pertaining to patient memory of other medical information

Results from Reese and Smith (2006) and Reese Hnath-Chisolm(2005)

Reese and Smith (2006) Patients remember 80% immediately and 77% of the information on month later.

Reese and Hnath-Chisolm's (2005): Patient remember 74% HAO immediately and 78% on the information one month later.

However, readers should note; A main reason for the fairly high scores of the previous studies could result from the use of probed recall task and not free recall tasks (Free, Probed, Recognition Tasks).

The authors interpreted free recall to be the most difficult task, while the probed recall test was easier and the recognition test the easiest of the three.

Further Investigation

Additionally, Houts et al, 1998 and Kortman, 1992 illustrated poorer patient scores (14% and 42.5%) on free recalled information in comparison to better (80% and 62.5%) on probed recalled target information

Reese and Smith (2006) selected to use the easier probed recall format for their pilot study while Reese and Hnath-Chisolm (2005) elected to employ recognition task.

Normal Hearing Aid Orientation

Typically 45-60 Minutes

- We will use 45 minutes (Typical allowed time VA)
- Starting 45 minutes 45
- Call the Patient's Name (5) 40
 - Get up, walk back to room, take off coat, sit down, Introduction
- Otostomy, Hearing Aids, Feedback (5) 35
- Real Ear Measurements (10) 25
- Voice Clear, Loud Enough, Your Voice (5) 20
 - (How Does It Sound: No Point of Reference)
- Hearing aid Orientation (15) 5
 - Including Phone Demo, Program & VC
- Questions/Further Adjustment (Voice) (3) 2
- Thank you for coming (we have a walk-in clinic) (2) 0

Review of Literature

Patients must learn to:

Insert and remove their hearing aids

Operate volume controls

Manipulate program buttons or any other features.

How to use a telephone

Perform basic maintenance procedures.

Insertion-removal-and-knowledge of when to change batteries will also be vital information.

Other....

Negative Factors influencing Memory recall

Patient's hearing loss increased

The amount of information provided.

The organization/clarity of the information provided (A-Z or A-Z-D).

Type of task used to measure memory (Free, Probed, or Recognition)

Self beliefs, Confidence level

Time Constraints

Negative Factors influencing Memory recall

Recognition of negative cultural stereotyping

Education- Literacy level

Stress-Anxiety-Shock

Elapsed time before memory recall

Emotional State

Communication style of the clinician

Remember This Slide?

Normal Hearing Aid Orientation

Hearing aid Orientation (15)	5
• Including Phone Demo, Program & VC	
Questions/Further Adjustment (Voice) (3)	2
Thank you for coming (we have a walk-in clinic) (2)	0

Optimist or Pessimist?

Remember the research

- Astounding 40-80% of information forgotten
- 50% of what is remembered is recalled incorrectly

Hearing Aid Orientation:

- Pt forgets (Optimist) 50% of HAO
- 50% could be called correctly

15 Mins

7:30 Mins

3:45 Mins

Could possibly be left with 3:45 minutes of your appointment correctly recalled

What are our Options?

Written Material

- Not as effective as multifactor approach

Have the Patient return to the clinic?

- Do you have time to increase pt load?

Recording on a Tape or CD

- Demonstrated to be unsuccessful with pt's

Possible Solution

Provide hearing impaired patients with an audio-visual DVD that they could view at home.

Patients will be encouraged to watch the DVD should they forget any HAO related information making it more convenient and efficient for patients to solve any problems they encounter with their hearing aids.

Furthermore, based on review of the literature a rationale for the critical topics to be covered in a HAO DVD was justified.

Review of Literature

An effective HAO DVD should have an organized format and cover HAO topics suggested from a panel of audiologists.

A review of current audiology literature, revealed only two articles related directly to retention of HAO information by new hearing aid users (Reese and Smith, 2006 and Reese and Hnath-Chisolm, 2005).

The formation of the DVD script involved several sources.

First, Reese and Smith (2006) elicited opinions from several audiologists' about topics they expected to be covered in a HAO for new users

Hearing Aid Probed Recall Inventory (HAPRI)

- Based on all of the gathered information from several HAO checklists
- 25-item questionnaire

Aural rehabilitation information; at the request of the clinical staff at Central Michigan University (Dr. Nerbonne)

Author's personal clinical experience

Proposed Benefits

Audio-Visual format

- Houts et al (1998): Use of pictographs to supplement spoken health care information increased patient memory performance from 18% to levels in excess of 80%

Closed Captioning

Convenience for review at any time for hearing aid users

Users able to view magnified images while listening to audio commentary

Inclusion of Aural Rehabilitation

Future Research

Determine if an audio-visual DVD will improve patients knowledge and satisfaction.

Determine is such a DVD would have a positive impact on pt's memory recall and quality of life

Questions

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