Introduction

Any hearing aid fitting process contains a "narrative", being an explanation and justifications given for the particular sequence of actions and their context. Clinical experience indicates that the "narrative" may be important for the outcome of the fitting process.

Experiments

Two field studies were conducted with experimental wearable hearing aids including 19 and 18 subjects, respectively. In total 37 subjects. Different narratives were given to the test subjects, where they were led to believe that they wore amplification based on (a) self-adjusted hearing aids (b) computer-programmed hearing aids or (c) amplification based on "newly developed fitting methods".

Subjects

The subjects fulfilled the following criteria: experienced user, recently re-fitted bilaterally with modern non-linear hearing aids, moderate sensorimotor hearing loss (NHL: less than about 75 dB HL) and wear their own binural hearing aids on a daily basis.

Experiment 1: 4-6 weeks field test

In the first study, 19 subjects were provided with two essentially identical fittings accompanied by either the self-adjustment narrative or the computer-adjustment narrative during consecutive test periods. Subjects showed rather strong preferences for one of the other fitting, indicating that the narrative affected the preference. The results were supported by interview data.

Narratives Experiment 1

- Self-adjusted: "The experimental hearing aid has been programmed with your own self-adjusted settings (the one you have used for the last time)."
- Computer-programmed: "The experimental hearing aid has been programmed with settings calculated by the computer based on the individual hearing loss."

Test design Experiment 1

- Self-adjusted: "The experimental hearing aid has been programmed with your own self-adjusted settings (the one you have used for the last time)."
- Computer-programmed: "The experimental hearing aid has been programmed with settings calculated by the computer based on the individual hearing loss."

Results Experiment 1

- Self-adjusted: "The experimental hearing aid has been programmed with your own self-adjusted settings (the one you have used for the last time)."
- Computer-programmed: "The experimental hearing aid has been programmed with settings calculated by the computer based on the individual hearing loss."

Reasons for preference

- About 50% of the subjects state that the reason for preferring the self-adjusted hearing aid is that they have more control over the sound."
- "The computer program can be difficult to understand, compared to the self-adjusted hearing aid."

Experiment 2: 6 weeks field test

In the second study, 18 subjects were fitted with both self-adjusted amplification and computer-programmed amplification in a single blind test design accompanied by a new narrative letting them believe they wore amplification based on "newly developed fitting methods".

Narratives Experiment 2

- Self-adjusted: "The experimental hearing aid has been programmed with your own self-adjusted settings (the one you have used for the last time)."
- Computer-programmed: "The experimental hearing aid has been programmed with settings calculated by the computer based on the individual hearing loss."

Test design Experiment 2

- Self-adjusted: "The experimental hearing aid has been programmed with your own self-adjusted settings (the one you have used for the last time)."
- Computer-programmed: "The experimental hearing aid has been programmed with settings calculated by the computer based on the individual hearing loss."

Speech recognition in noise

As expected, it was not possible to show any objective speech recognition in noise differences between the different test conditions (neither in Experiment 1 or Experiment 2) with identical amplification, indicating that the narrative effect was mainly subjective.

Discussion and conclusions

The results from the two studies indicate that the outcome of a fitting process is affected by the extent to which the client finds the narrative appropriate and reasonable. We have also confirmed what practicing dispensers have always known: that a strong narrative can easily convince a willing client, despite contradictory evidence available via listening to the hearing aid in different listening conditions. Experience of the hearing aid fitting can be different depending on the narrative the client is provided with.

The results do not tell us about the effects of the narratives on the hearing aid research. Nevertheless, it is clear that the narrative effect is present in the hearing aid research.

The results indicate rather strong preferences towards one of the two biased narratives used in the Experiments. However, no predictions can be made for who prefers which narrative.

The results do not tell us about the effects of the narrative in the real world outcome, nevertheless it is clear that the narrative can be important in the hearing aid research.

References