

Infant Hearing Decisions: Feedback From Parents and Professionals

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Abstract

Timely early intervention for infants with hearing loss maximizes the potential for successful speech, language, literacy and academic outcomes. Family training and practice in decision-making strategies can facilitate the intervention process and reduce intervention delays. The goal of this project was to evaluate a DVD that is designed to help family members develop and practice essential decision making skills related to communication, technology, and education options for their child. The DVD, called Infant Hearing Decisions, uses an innovative approach for shared learning among extended family members. The majority of the content is delivered by parents telling stories about their own personal experience. The DVD consists of six chapters (a) Introduction, (b) Making Decisions, (c) Communication, (d) Technology, (e) Education and (f) Next Steps. Infant Hearing Decisions is narrated by a speech-language pathologist, Greg; and a parent of a child with hearing loss, Verda. The two narrators guide other parents through a five step process for systematic decision-making regarding choices available and appropriate for their individual child. The narrators discuss Verda's journey as they guide parents through the decision-making process regarding communication, technology and educational options. Parents and family members were encouraged to take into consideration their individual child's needs, consider all the issues, look at appropriate alternatives, make a decision, implement it, and monitor progress to guide future decisions. A pilot study to evaluate the concept and potential efficacy of the DVD was completed. Strengths and weaknesses of the concept and format are presented, along with data relative to the potential efficacy of this tool.

Background

The goal of this project was to develop and evaluate a DVD tool (Infant Hearing Decisions), designed to facilitate the parental decision making process when considering technology use, development of communication skills, and choice of education options for children diagnosed with hearing loss.

The hypothesis was that parents and family members would experience a sense of self efficacy (increased knowledge and confidence in skill level) as a result of the intervention tool. Infant Hearing Decisions is an intervention tool (DVD) developed to model a systematic decision-making process with the content delivered via parent experiences. This intervention tool is culturally diverse and encourages decision-making based on the individual needs of the child and family dynamics.

This study was approved by the Internal Review Board (IRB) at the University of Arkansas for Medical Sciences (UAMS), Protocol # 202867.

Method

Participants

Parents and family members were invited for a 2 hour introduction to the use of the Infant Hearing Decisions DVD. Ten parents and/or family members attended the viewing and completed pre-and post-viewing questionnaires. Ethnicity and race of participants are shown in Table 1.

Table 1. Ethnicity and race of participants by gender.

	Male	Female	Total
Hispanic or Latino	0	0	0
Not Hispanic or Latino	2	8	
Race			10
American Indian/Alaska Native	0	0	
Asian	0	0	
Native Hawaiian or Other Pacific Islander	0	0	
Black or African American	2	2	
White	2	6	8
Total of All Subjects	2	8	10

Materials

Infant Hearing Decisions (Intervention)

The DVD includes five chapters:

Introduction

Overview of content provided by two guides: a speech-language pathologist and a parent of a child with hearing loss.

Making Decisions

Overview of decision-making process

- Identify issues important for your child
- Gather information
- Evaluate alternatives and consider the consequences of each
- Make a decision, formulate a plan and implement it
- Monitor progress toward goal and re-evaluate as needed

Technology

Overview of technology options with decision-making process and strategies embedded in content.

Communication

Overview of communication approaches with decision-making process and strategies embedded in content.

Education

Overview of education options with decision-making process and strategies embedded in content.

Next Steps

1. Monitor your child's developmental progress to guide your decision making.
2. Re-evaluate your plan as new information about your child's progress becomes available.

Pre- and Post-Questionnaire

A pre- and post- questionnaire was developed to assess the efficacy of the intervention tool. The pre-questionnaire included a demographic section about the parent and child. The pre- and post-questionnaire included two parts (a) self-ratings regarding the value of the concept, knowledge about the concept, and confidence in skill level, and (b) rating the importance of the topic. A sample of the questionnaire is shown in Figure 1.

Procedures

Parents and family members were recruited for this study to evaluate the efficacy of Infant Hearing Decisions as an intervention tool using a repeated measures program evaluation design. Ten parents and family members volunteered for this study. All study procedures were completed at Arkansas Children's Hospital. First, the participants took a pre-questionnaire survey, then watched the DVD. Following completion of the DVD viewing, participants completed a post-questionnaire and a user satisfaction survey.

Results

Mean ratings for pre-and post-intervention results are shown in Figure 2 for eight questions. The blue bars graphs below represent the mean scores for the pre-intervention questions the purple bars show the mean score for the post-intervention questions. For each question, there were three items: (a) importance, (b) knowledge, and (c) confidence in skill level.

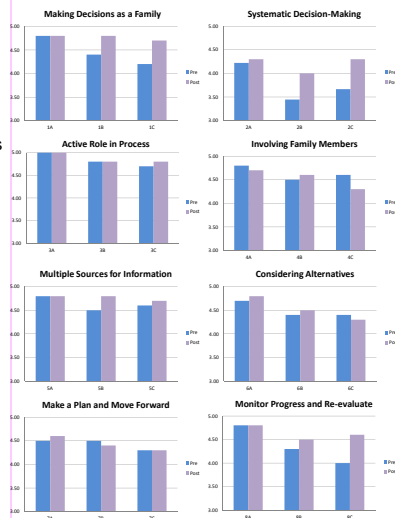


Figure 1. Pre- and post-intervention ratings for (a) Importance, (b) knowledge, and (c) confidence in skill level for eight items.

Parents and family members were asked to rate the level of importance of knowing and being able to meet the needs of their child in six categories (items # 9 through #14 on the questionnaire):

9. Communication Needs
10. Listening Needs
11. Language Needs
12. Educational Needs
13. Literacy Needs (reading)
14. Technology Needs

Pre-intervention ratings are shown in blue; post-intervention ratings are shown in purple (Figure 2).

Importance of Topics

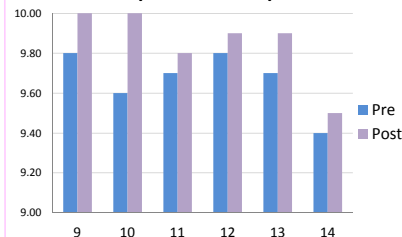


Figure 2. Pre- and post-intervention ratings for six questions (#9 through # 14) addressing importance of meeting child's needs in each category.

Conclusions

In general, findings support the use of a multimedia culturally sensitive decision making tool for families of children with early identified hearing loss.

References

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