INTRODUCTION

The present study investigated current research on hearing device fitting strategies and the impact on children with developmental differences. A literature review was completed to better understand the impact hearing device programming strategies and available accessories on children with developmental differences.

A thorough review of the literature found that there is minimal research regarding specific hearing device features that should be considered for and might benefit children with developmental differences. Due to limited research, a new resource was created using the professional expertise of audiologists and a developmental psychologist that assists in the treatment of children with hearing loss and developmental differences. This project aims to provide an accessible resource for audiologists and families to guide them in making informed decisions regarding hearing device technology that will maximize the use and acceptance of these devices for children with developmental differences.

METHODOLOGY

The purpose of this study was to investigate current research on hearing device fitting strategies and the impact on children with developmental differences. A literature review was completed to better understand the impact hearing device programming strategies and available accessories on children with developmental differences.

RESULTS

Autism Spectrum Disorder

Motor Delay

Vision Differences

REFERENCES

1. Considerations in Hearing Device Technology in Children with Developmental Delays

Kassandra Madore B.S. 1,2, Emily Claire Nightengale B.A. 1,2, Jennifer Urgino Au.D. 1, Deborah Mood Ph.D.1,2

1. Children’s Hospital Colorado 2. The Colorado Leadership Education in Neurodevelopmental and Related Disabilities (LEND) program

DISCUSSION

Comparison of across devices indicates that several manufacturers include features which could assist with device retention, suggesting good principles of universal design.

Results indicate a few areas of specific differences between manufacturers which could influence device retention with children with developmental differences (e.g., body worn option).

In this sample of pediatric trained audiologists, indicator lights, tamper-proof battery doors, and durability were considered the most important considerations when fitting hearing technology for children with developmental differences. The developed resource may be helpful in counseling families how to use these features for device retention.

Additional survey data from cochlear implant trained audiologists would be helpful to better understand features of cochlear implant processors which could assist with device retention, suggesting good principles of universal design.

Further research is needed to determine what parents and caregivers of children with developmental differences consider the most important when fitting hearing technology to increase device acceptance and use.

CONCLUSIONS AND FUTURE DIRECTIONS

Both parents and audiologists must be considered of device options and accessories to maximize use and acceptance in children with developmental differences.

Indicator lights, tamper-proof battery doors, and durability were considered some of the most important variables by audiologists when selecting hearing device technology for children with developmental differences.

Additional survey data from cochlear implant trained audiologists would be helpful to better understand features of cochlear implant processors which are important for children with developmental differences.

Research is needed to determine how children with developmental differences respond to specific hearing technology programming and accessories in order to increase acceptability and device use.