

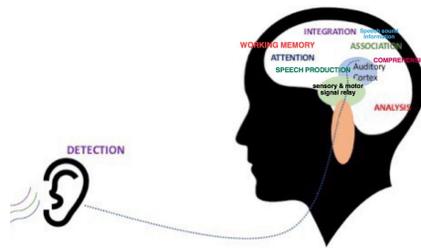
# The Efficacy of Auditory Processing Disorder (APD) Interventions: Parent and Provider Perceptions

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## Background

- Auditory processing disorder (APD) is a deficit of active listening and is believed to originate in the brain, not the ear (American Academy of Audiology, 2010).
- APD frequently overlaps with speech-language disorders, attention-deficit disorders, and autism spectrum disorder.
- There are many debates and discussions between health professionals, including audiologists and speech-language pathologists, on the diagnosis and treatment efficacy for auditory processing disorder (APD) in school-aged children (Fey et al., 2011).
- Commonly used interventions include computerized trainings and traditional listening treatments (Fey et al., 2011; Sharma et al., 2012; Lotfi et al., 2016).
- Healthcare providers may have differing opinions regarding the options and effectiveness of treatment interventions for patients with APD.
- Parents often have a more personal view of their child's difficulties and the effectiveness of their treatment.



## Aims

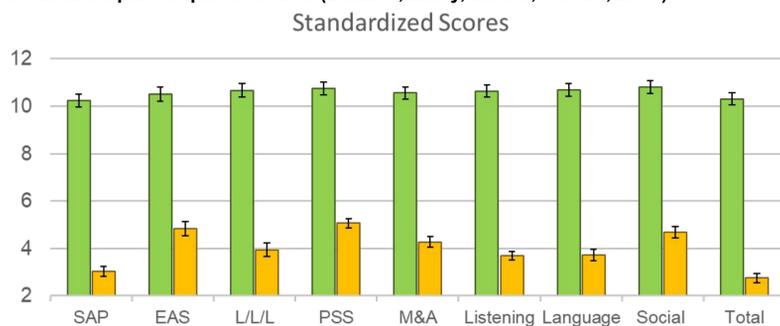
The overall goal of this project is to compare parent and healthcare professional perceptions of effectiveness of the individual child's APD treatment.

Specific Questions:

- What are the similarities and differences between the diagnosis given and treatment received?
- What are perceptions of effectiveness of APD intervention by providers and families?

## Methods

**Participants:** 72 children determined to have significant listening difficulties that are defined by a validated parent questionnaire (ECLIPS, Barry, Moore, Tomlin, 2015).



Green bars = age-matched, typically developing children  
Gold bars = 72 children with significant listening difficulties

Fig 1. Results of the ECLIPS Parent Questionnaire for children with APD compared to age-matched typically developing children. Note: Standard score of 10 is average.

### Data Collection:

- A retrospective analysis of each subject's electronic medical record was completed with specific focus on appointments completed in the following categories: audiology, occupational therapy, psychology, and speech-language pathology.
- The number of overall sessions, sessions related to listening, and visit diagnoses were recorded for each child included in the study.
- A survey was sent to providers within audiology, occupational therapy, psychology, and speech-language pathology to assess their perceptions regarding the effectiveness of interventions for listening difficulties.
- A second survey was sent to caregivers of children with reported listening difficulties to assess their perceptions of the effectiveness of interventions offered to their children for listening difficulties.

## Acknowledgements

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- The patients, families, and professionals who make this work possible through their participation.

## Results

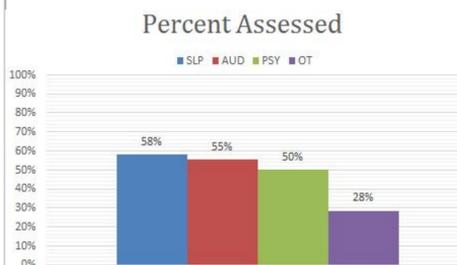


Fig. 2. Percent of children receiving a diagnostic assessment in each specialty.

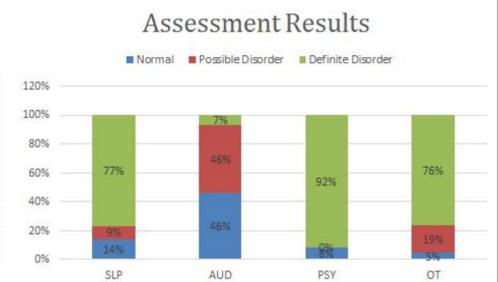
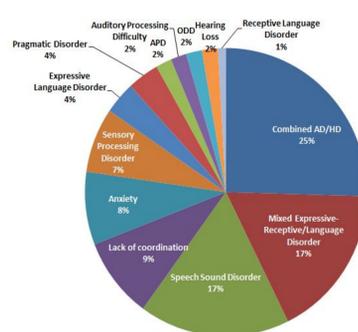


Fig. 3. Percent of diagnostic assessments that were normal vs. possible and/or definite in each specialty.



Prevalence of Diagnoses Identified

Fig. 4. Types of specific diagnoses identified; many children had more than one diagnosis.

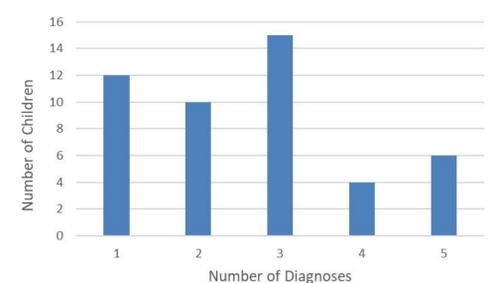


Fig. 5. Number of diagnoses given; 3 diagnoses was most common. Five or more diagnoses are combined into 5.

## Average Number of Intervention Sessions



Fig. 6. Average number of intervention sessions in each specialty, and for auditory processing specifically.

## Conclusions

- Further research is warranted to determine if parent-reported learning difficulties are secondary to their child's auditory concerns, or a primary concern.
- There are many therapies that target functional skills in attention, fine motor skills, language, and sensory processing, but far fewer therapies are designed to specifically intervene with auditory processing skills.
- More research is needed to develop evidence-based listening interventions, as well as to study their effectiveness and transference to skills that are important for learning and language development.

## Next Steps

- Compare parent and healthcare provider questionnaires to analyze differences in views of treatment needs.
- Compile data for a manuscript submission.

## References

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