

# Impact of an Education Specialist on the Care of Children with Hearing Loss

## Introduction

- An education specialist (ES) can function as an informed liaison who advises parents regarding the educational needs of a child with hearing loss (HL)
- Having a professional in the clinical setting to streamline access to academic, social, and logistical resources can improve outcomes for children who are deaf or hard of hearing (DHH) in the years following their diagnosis<sup>1</sup>
- The purpose of this study was to assess the quantitative parent-reported impact of an ES on the care of DHH children as part of a multidisciplinary hearing loss team at a tertiary care academic hospital

## Methods

- Retrospective review of consultations held between an ES and families of DHH children between January 1, 2020 and January 1, 2022 to determine reasons for referral and services provided to patients
- Cross-sectional survey of families of DHH children who worked with the ES
  - REDCap
  - 25 questions evaluating utilization of ES services, participants' experiences working with the ES, participants' satisfaction with ES services, and demographic data

## Results

### Reasons for ES Referral

| Reason for Referral  | Number of Referred Patients (n = 102) |
|--|---------------------------------------|
| Required an IEP/504 plan but had none in place   | 32 (31.3%)                            |
| Had an IEP/504 plan that was considered to be inadequate and/or the parent requests additional support to review it                | 37 (36.3%)                            |
| Had early intervention services in place which did not include deaf/hard of hearing supports                                       | 11 (10.8%)                            |
| Referred at the point of hearing loss identification to determine the next steps for establishing their necessary support services | 14 (13.7%)                            |
| Referred to assess needs prior to the surgical implantation of a hearing device  | 5 (4.9%)                              |
| Family requested support as their child transitioned from early intervention services to IEP/504 plans                             | 3 (2.9%)                              |

### Services Provided by ES (n=14)

| Service provided   | Number of respondents who utilized each service |
|--|---|
| Review of and/or help adjusting the patient's existing IFSP, IEP, or 504 plan      | 8 (61.5%)                                       |
| Establishing deaf/hard of hearing early intervention services for the patient      | 7 (53.8%)                                       |
| Establishing an IFSP, IEP, or 504 plan for the patient                             | 5 (38.5%)                                       |
| Connecting the family with additional support services                             | 4 (30.8%)                                       |
| Providing web- and community-based resources for the family                        | 4 (30.8%)                                       |
| Initiated a school evaluation for the patient                                      | 4 (30.8%)                                       |
| Reviewed and explained the patient's school evaluation results to the family       | 4 (30.8%)                                       |
| Wrote a recommendation letter on behalf of the patient for services/accommodations | 3 (23.1%)                                       |
| Attended the patient's IFSP, IEP, or 504 plan meetings                             | 2 (15.4%)                                       |
| Assistance with transition of services from early-intervention to IEP or 504 plan  | 1 (7.7%)  |

### Participants' Experiences Working with ES (n=14)

|   | Strongly disagree | Somewhat disagree | Neither agree nor disagree | Somewhat agree | Strongly agree |
|---|-------------------|-------------------|----------------------------|----------------|----------------|
| The education specialist was helpful in finding me resources to support my child following their care at Mass Eye & Ear                   | 0 (0.00%)         | 1 (7.7%)          | 2 (15.4%)                  | 3 (23.1%)      | 7 (53.8%)      |
| The education specialist had a positive impact on the learning/educational development of my child following their care at Mass Eye & Ear | 0 (0.00%)         | 1 (7.1%)          | 3 (21.4%)                  | 2 (14.3%)      | 8 (57.1%)      |
| I had a positive experience working with the education specialist   | 0 (0.00%)         | 0 (0.00%)         | 2 (14.3%)                  | 2 (14.3%)      | 10 (71.4%)     |
| Working with an education specialist helped prepare me to better support my child's development following their care as Mass Eye & Ear    | 0 (0.00%)         | 0 (0.00%)         | 4 (30.8%)                  | 3 (23.1%)      | 6 (46.2%)      |
| The education specialist listened to my concerns and answered my questions regarding my child's care                                      | 0 (0.00%)         | 0 (0.00%)         | 2 (14.3%)                  | 1 (7.1%)       | 11 (78.6%)     |
| I would recommend that others work with an education specialist following their care at Mass Eye & Ear                                    | 0 (0.00%)         | 0 (0.00%)         | 1 (7.1%)                   | 4 (28.6%)      | 9 (64.3%)      |

### Participant Satisfaction with ES Services (n=14)

|  | Does not apply | Very dissatisfied | Somewhat dissatisfied | Neutral   | Somewhat satisfied | Very satisfied |
|--|----------------|-------------------|-----------------------|-----------|--------------------|----------------|
| Making recommendations to support my child's learning (may include recommendations for Early Intervention IFSP or School IEP / 504 Plan) | 0 (0.00%)      | 0 (0.00%)         | 0 (0.00%)             | 2 (16.7%) | 2 (16.7%)          | 8 (66.7%)      |
| Helping to understand options for early intervention or education/school   | 2 (14.3%)      | 0 (0.00%)         | 0 (0.00%)             | 3 (21.4%) | 1 (7.1%)           | 8 (57.1%)      |
| Providing helpful answers to my questions  | 0 (0.00%)      | 0 (0.00%)         | 0 (0.00%)             | 1 (7.1%)  | 3 (21.4%)          | 10 (71.4%)     |
| Helping find resources or supports for my family   | 2 (14.3%)      | 0 (0.00%)         | 0 (0.00%)             | 1 (7.1%)  | 4 (28.6%)          | 7 (50.0%)      |
| Coordinating contact or services with early intervention or education providers  | 4 (30.8%)      | 0 (0.00%)         | 0 (0.00%)             | 3 (23.1%) | 1 (7.7%)           | 5 (38.5%)      |
| Help in finding resources for my child's social development  | 3 (23.1%)      | 0 (0.00%)         | 0 (0.00%)             | 3 (23.1%) | 2 (15.4%)          | 5 (38.5%)      |
| Providing follow-up care (i.e. the education specialist was available for consults if needed)  | 2 (14.3%)      | 0 (0.00%)         | 0 (0.00%)             | 2 (14.3%) | 3 (21.4%)          | 7 (50.0%)      |

## Discussion

- Early Intervention is essential for optimizing educational and social development in children with HL<sup>2</sup>
- Caregivers are often responsible for determining and acquiring appropriate resources for their DHH child but may experience difficulty in doing so<sup>3,4</sup>
- Integrating an ES into the healthcare team for DHH children can facilitate the establishment and optimization of formal education plans for HL patients, bridge gaps in existing DHH care, and streamline clinical care
- Limitations include low survey response rate and potential response bias due to the nature of survey research

## Conclusions and Future Directions

- An ES in the healthcare team can improve psychosocial and clinical care for children with hearing loss and ensure proper development
- Future multicenter studies with larger samples should be performed to gain a better understanding of patient perspectives regarding ES services

## References

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