

Pediatric Hearing Aid Use: Parent Reported Challenges

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Disclosure:

Neither I nor any member of my immediate family has a financial relationship or interest (currently or within the past 12 months) with any entity producing, marketing, re-selling, or distributing health care goods or services consumed by, or used on, patients.

I do not intend to discuss an unapproved/investigative use of a commercial product/device.



Hearing aid fittings are routine in infancy

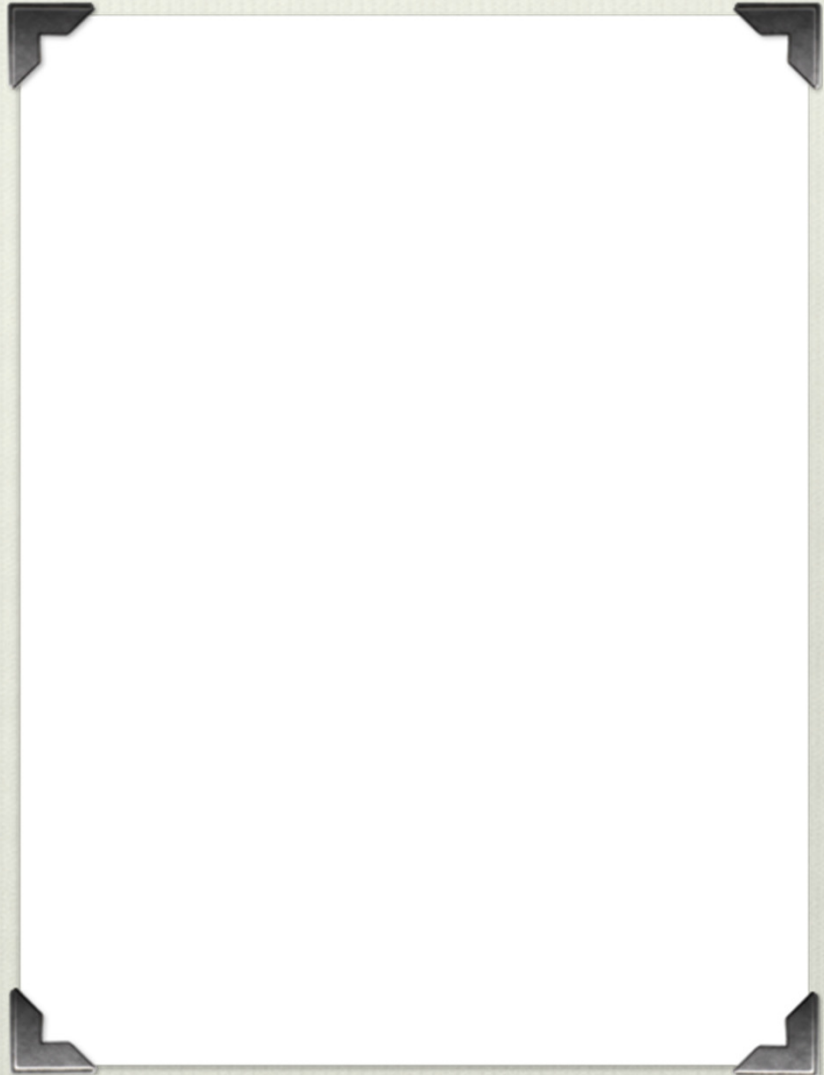
(Muñoz et al., 2013)

Parents are central in the intervention process

Parents Need

- Information
- Skills
- Support

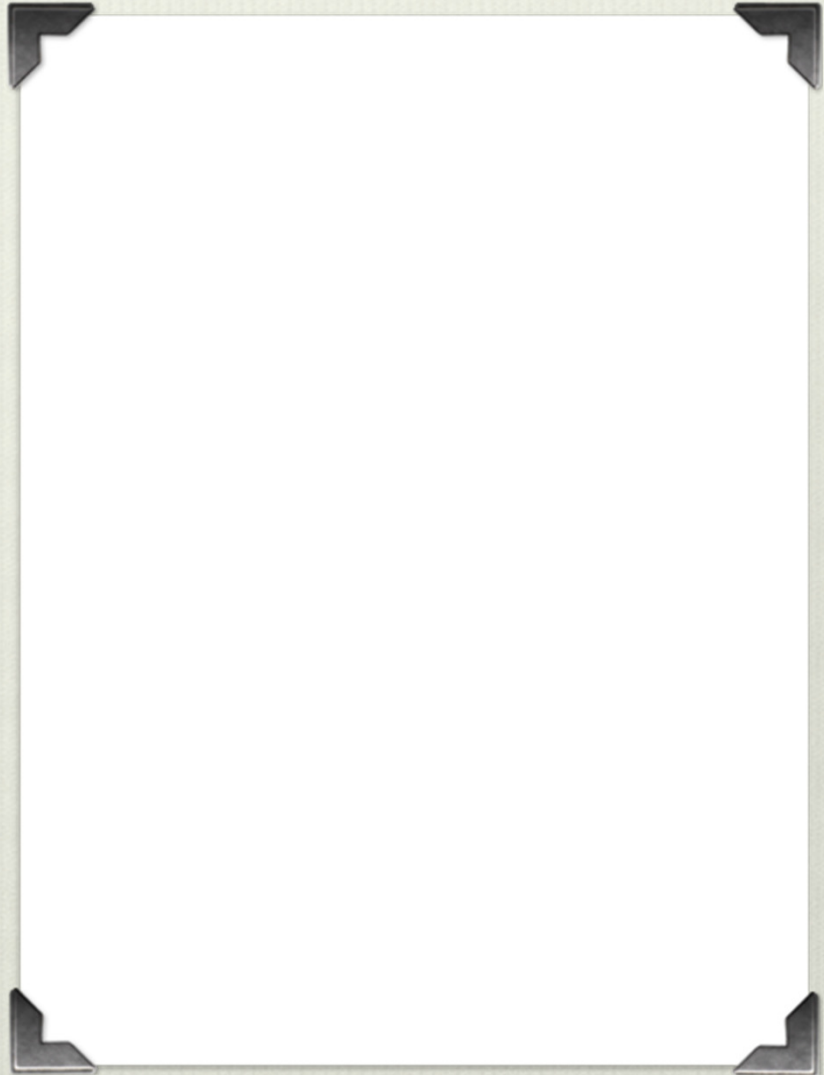
To be effective day-to-day



Challenges Reported

- Child behavior
- Activities
- Retention
- Child state
- Transition times
- Acceptance
- Troubleshooting problems

(Sjoblad et al., 2001; Moeller et al., 2009;
Walker et al., 2013; Muñoz et al., 2013)



Data logging: hearing aid use is not consistent

Study	N	Ages	Hours of use
Walker et al., 2013	133	5 mo. – 7 yrs	8 (range 2-10)
Jones et al., 2010	5000 (total)	0 – 4 yrs (sub-set)	5
Jones, 2013	2160	0-4 years	4.5
Muñoz, et al., in press	12	7 – 35 months	4 (range 0-11.5)

If you change the way you look at things, the things you look at change

~ Wayne Dyer

Parent Hearing Aid Management Inventory

Acceptance and Action Questionnaire II

**Patient Health Questionnaire
(PHQ-9)**

Responses

- ❖ 37 families (54% return rate)
 - ❖ Utah and Indiana
 - ❖ 35 mothers, 20 fathers
 - ❖ Majority Caucasian, college-educated, two-parent homes, spoken language primary mode of communication
- ❖ 37 children (M=22 months; SD=8.07)
- ❖ Binaural hearing loss
- ❖ Hearing aid experience (M=15 months)
- ❖ Degree of HL/multiple disabilities not collected

Information Gaps

Not provided by audiologist:

- ❖ 43% - other hearing devices (e.g., FM)
- ❖ 30% - hearing aid use
- ❖ 30% - referrals (e.g. EI)

Skill Gaps

Not taught by audiologist:

- ❖ 59% - how to do a Ling 6 Sound check
- ❖ 57% - how to teach others to check hearing aids
- ❖ 36% - troubleshooting hearing aids

Lack of Confidence in Performing Skills

0 = no confidence; 100 = complete confidence

Skill	n Mothers	M (SD)	n Fathers	M (SD)
LING sound check	24	47.08 (41.54)	16	48.44 (47.42)
Troubleshoot function	25	51.52 (33.04)	16	50.00 (38.25)
Daily listening check	25	70.00 (36.60)	17	53.76 (46.83)
Teach others listening check	23	61.09 (39.48)	17	63.24 (40.50)
Keeping hearing aids on child	28	78.39 (29.72)	16	70.31 (36.67)

64% not listening to HA's daily

Communication Gaps

Aspects of communication not addressed:

- ❖ 64% - support for managing emotions
- ❖ 49% - help with how to talk to others about HL
- ❖ 47% - enough time to talk about emotions

Expectations

Expectations not addressed by audiologist:

- ❖ 69% - parent emotions about hearing loss
- ❖ 68% - what hearing aids cannot provide
- ❖ 41% - how to determine progress
- ❖ 39% - demands of daily management
- ❖ 24% - frequency of earmold replacement

Parent Concerns

- ❖ 73% concerned with how to manage child's feelings about wearing HA's
- ❖ 60% of mothers (45% fathers) frustrated with daily management
- ❖ 57% of mothers (40% fathers) lacked confidence in ability to detect a problem with the HA
- ❖ 29% of mothers (10% fathers) felt child was not benefitting

Hearing Aid Use Challenges

- ❖ 75% - activities
- ❖ 59% - child behavior
- ❖ 46% - frustration keeping hearing aids on
- ❖ 37% - distractions from other children in home
- ❖ 37% - other caregivers' ability to manage HA's

37% use hearing aids less than 5 hours per day

Psychosocial Impact

- ❖ 96% handling internal experiences in healthy ways (M = 14.5; SD = 6.6)
 - ❖ (e.g., recalling unpleasant emotions, worries/emotions controlling life)
- ❖ 22% experienced mild to severe symptoms of depression
 - ❖ greater for mothers (M=3.7; SD= 3.9; range: 0-15) than fathers (M=1.8; SD=2.9; range: 0-10)
 - ❖ 40% of parents indicated that symptoms of depression were interfering with daily life activities

Research Needed

- ❖ Types of challenges that influence hearing aid use
- ❖ Effective support interventions that can be provided within routine care
- ❖ Training needs of providers related to effective communication and support strategies
- ❖ How hearing aid use impacts developmental outcomes



Opportunities for improvement

- Provide comprehensive information
- Monitor and support skill acquisition
- Address emotional needs (not just informational)
- Collaborate with other intervention providers and medical home

Questions?