

## Managing Family Involvement in Therapy and Education for Children

Alice Eriks-Brophy, Ph.D.  
Associate Professor  
Department of S-LP, University of Toronto  
a.eriks.brophy@utoronto.ca



## Proposed Predictors of Language Outcomes for Children with Hearing Loss

Much current research is focusing on understanding those variables that might be predictive of positive speech and language outcomes for preschool children identified with hearing loss.

- Child factors
- Family factors
- Intervention factors



### Child Factors

- Degree and configuration of the loss
- Etiology of the loss
- Overall health of the child
- Presence of additional handicaps
- Amount of residual hearing
- Age at which hearing loss occurred



### Child Factors (continued)

- Age of identification of the hearing loss
- Age of enrolment in intervention
- Age at amplification/CI
- Effectiveness of the amplification devices and/or CI
- Hearing potential of the child
- Child's behaviour, temperament, learning style, intelligence



## Family Factors

- family attitude toward and acceptance of the hearing loss
- emotional state of the family
- quality, quantity and consistency of language stimulation in the home
- effectiveness of audiological management
- level of participation of the family
- skills of the parent/caregiver
- environmental facilitators and barriers



## Intervention Factors

- Quality and quantity of intervention provided
- Skill of the therapist
- Degree of collaboration between the family and the professional
- Family involvement in intervention



## Proposed Predictors of Language Outcomes for Children with Hearing Loss

- Degree of hearing loss
- Age at identification
- Age of enrolment in language intervention
- Family involvement



## Caveats

- While family involvement in early intervention is proposed to be a critical variable in predicting communication outcomes for children with hearing loss, there is currently little empirical evidence to support this premise.
- This situation is due in part to:
  - a lack of consistent operationalization of the construct of family involvement
  - a lack of existing measures to objectively evaluate family involvement in early intervention
  - the wide variety of behaviours, activities and goals that are encompassed in family involvement



## Definitions and Parameters of FI in Early Intervention Programs

- There is no comprehensive existing objective definition of FI in the literature on early intervention for children with hearing loss.
  - “extent to which parents are involved in the specific parenting responsibilities or tasks that professionals recommend to develop their child’s auditory and speech-language skills” (DesJardin, 2003)
  - “parental participation in intervention sessions and follow-up at home” (Simsler, 2001)



## Parental Behaviors Suggestive of FI

- Instead, family involvement tends to be defined in terms of behaviours that are suggested as being indicative of their involvement:
  - rate of parental attendance to intervention sessions
  - parental enthusiasm in participating in intervention
  - maintenance of the child’s hearing technology
  - compliance with assigned at-home exercises



## Current State of Assessment of FI in Language Development

- Moeller, M. (2000). Early intervention and language development in children who are deaf and hard of hearing. *Pediatrics*, 106(3), E43.
- DesJardin, J. (2003). Assessing parental perceptions of self efficacy and involvement in families of young children with hearing loss. *The Volta Review*, 103(4), 391-409.
- Calderon, R. (2000). Parental involvement in deaf children’s education programs as a predictor of child’s language, early reading and social-emotional development. *Journal of Deaf Studies and Deaf Education*, 5 (2), 140-155.



## Moeller Rating Scale

- Rating scale evaluating parental involvement in the early intervention program completed by the clinician involved with the family.
- The scale consists of five possible ratings of parental participation and an associated list of variables proposed to characterize the level and quality of involvement in the early intervention program ranging from ‘limited and far below average participation’ to ‘ideal participation’.
- Parental perceptions of their own involvement are not examined.



## DesJardin Rating Scale

### Scale of Parental Involvement and Self-Efficacy (SPISE)

- 10 items to assess parental self-efficacy
- 11 items to assess parental involvement
- Two domains per scale with 5-6 items per domain rated by parents on a 1-7 Likert scale
  - Self-efficacy/parental involvement and amplification use
  - Self-efficacy/parental involvement and speech-language development



## Calderon Rating Scale

- Maternal involvement in children's school-based educational programs assessed by the child's teacher using a 14 item scale was a significant predictor of early reading skills and accounted for 27% of the outcome variance in early reading scores on the Test of Early Reading Ability-D/HH
- Maternal involvement was significantly correlated with SES and maternal education level
- Results suggest an indirect link between FI and early reading outcomes, but no causal or predictive relationship can be assumed
- Results not specific to early intervention



## Calderon's indicators of school-based maternal involvement for children with HL

- Participates in IEP meetings
- Attends school-related activities
- Volunteers in the classroom
- Requests additional services for child
- Observes in child's classroom
- Engages in spontaneous contact with child's teacher
- Reviews child's homework



## Calderon's indicators of school-based maternal involvement for children with HL (cont)

- Expands on or reinforces topics/lessons learned in school
- Helps with school fundraisers
- Knows child's classmates
- Asks questions about the curriculum
- Uses teacher-established system for communicating with teacher (e.g communication book, telephone appointment)
- Enhances child's learning opportunities



## Other Factors Potentially Affecting PI in Early Intervention

- Knowledge of hearing loss
- Knowledge of hearing technology
- Parental stress
- Parental acceptance of hearing loss
- Parental progression through the grieving process
- Child characteristics
- Family characteristics
- Parent-child relationship
- Clinician-family relationship
- Ecological factors
- Cultural variables
- Others????



## Cultural Differences in Perceptions of PI

- Existing evidence suggests there are cultural differences in parental reaction to childhood disability in general, and to deafness in particular.
- These will have a clear impact on the evaluation of PI in early intervention programs.
- These reactions may include:
  - a strong social stigma associated with hearing loss
  - the search for a cure through traditional healers and folk rituals, remedies and/or religion
  - differing beliefs related to the etiology of the child's hearing loss
  - a reluctance to engage in discussions surrounding their child's diagnosis



## Evidence Supporting Cultural Differences in Perceptions of PI

- A US nationwide survey of multicultural families of children with hearing loss conducted by Meadow-Orlans et al. (2003) indicated that parents of children with hearing loss from minority culture backgrounds:
  - reported lower levels of satisfaction with services provided to their children as compared to majority culture parents
  - expressed perceptions of encountering both cultural and linguistic barriers to participation in intervention and access to service
  - experienced and maintained higher stress levels associated with their child's diagnosis and participation in intervention than did majority culture parents



## Research examining Family Involvement

### Research Examining Family Involvement for Children with Hearing Loss

- Clinicians' and parents' perspectives on family involvement in early intervention for children with hearing loss
- Results of a systematic review
- Cultural issues in oral language intervention programs



## Clinicians' and Parents' Perspectives on Family Involvement (FI)

### Objectives

- To examine clinicians' and parents' definitions of and perspectives on FI.
- To identify factors that might have an influence on FI.
- To rate a list of 60 variables previously identified from an extensive review of the literature on FI in early intervention and education as having a potential effect on involvement and outcome.



## Clinicians' and Parents Perspectives on Family Involvement (FI)

### Method

- Professionals participated in four focus groups where definitions of FI and factors that might have an influence on FI were discussed.
- Parents participated in two focus groups where these same questions were discussed.
- At the end of the focus groups, participants were asked to rate the 60 variables previously identified from the literature on early intervention and education as having a potential effect on FI.
- These variables were organized into 5 sections and contained a varying number of items per domain.
- Each variable was rated on a scale of 0 (not important) to 2 (very important).



## Clinicians' and Parents Perspectives on Family Involvement (FI)

### Participating Clinicians

- Information was obtained through four focus groups conducted with 35 professionals providing services to families of children with hearing loss in the greater Toronto area.
- One third of the participants worked exclusively in early intervention programs (EIPs), and two thirds worked in school settings but had early intervention experience.
- Years of experience varied from 2 years to over 20 years of involvement with families of children with hearing loss.
- All but three of the participants represented majority culture backgrounds and spoke English as their first language.
- Two of the participants had hearing loss themselves.



## Clinicians' and Parents Perspectives on Family Involvement (FI)

### Participating Parents

- Information was obtained through two focus groups conducted with 8 parents of preschool children with hearing loss
- All participating parents had some level of post-secondary education that ranged from having obtained a certificate from a community college to holding a BA or an MA degree
- One of the 8 parents was a single parent
- Six of the eight participants spoke English as their first language, two participants spoke Mandarin but communicated with their child primarily in English
- All participants had an annual family income in excess of \$70,000
- None of the parent participants had hearing loss themselves.



## Clinicians' and Parents Perspectives on Family Involvement (FI)

### Questions Used in Guiding Focus Group Discussions

- What does "family involvement" mean to you?
- How do you assess family involvement in your program?
- What might be some characteristics of "involved" parents ?
- What might be some characteristics of "uninvolved" parents?
- What factors do you think might influence family involvement?
- Is family involvement crucial to the work you do? Why or why not.
- What might be some of the primary obstacles to FI?



## Clinicians' and Parents Perspectives on Family Involvement (FI)

### Ratings of Variables Associated with PI

- A set of 60 variables were organized into 5 sections and contained a varying number of items pertaining to:
  - parents (19 items)
  - the child (14 items)
  - hearing loss and the early intervention program (21 items)
  - ecological factors (3 items)
  - parent-child interaction (3 items)
- Each variable was rated on a scale of 0 (not important) to 2 (very important).
- Mean scores and standard deviations of the rated variables were calculated for both groups



## Clinicians' and Parents Perspectives on Family Involvement (FI)

### Variables related to PARENTS

- Family income
- Parental stress level
- Coping style
- Age
- Level of education
- Family structure
- Marital status
- Parental stage in the grieving process
- Communication skills
- Parental hearing status
- Maternal language
- Perception of empowerment



## Clinicians' and Parents Perspectives on Family Involvement (FI)

### Variables related to PARENTS continued

- Perception of communication between parents
- General health
- Member of a cultural minority
- Presence of a role model
- Parents' confidence in themselves
- Perception of having everyday hassles
- Perception of the family quality of life



## Clinicians' and Parents Perspectives on Family Involvement (FI)

### Variables related to PARENTS continued

- Perception of communication between parents
- General health
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- Perception of the family quality of life



## Clinicians' and Parents Perspectives on Family Involvement (FI)

### Variables related to the CHILD

- Childcare arrangements
- Type of hearing technology
- Type and degree of hearing loss
- Age of diagnosis
- Child's tolerance of hearing technology
- Use of services in addition to the EIP (medical care, counselling, etc.)
- Participation in extracurricular activities unrelated to the EIP (sports, clubs, playgroups, etc.)



## Clinicians' and Parents Perspectives on Family Involvement (FI)

### Variables related to the CHILD continued

- Presence of additional handicapping conditions (cleft palate, behaviours, difficulties, etc.)
- Temperament
- Presence of a role model
- Caregiver during the day
- Language used during the day



## Clinicians' and Parents' Perspectives on Family Involvement (FI)

### Variables related to the HL and the EIP

- Length of intervention
- Intensity of intervention
- Communication approach used
- Satisfaction with services received
- Perception of availability of support services
- Division of parental roles and contribution of each parent
- Trust in the professional delivering the EIP
- Access to the center delivering the EIP
- Distance from the center delivering the EIP
- Involvement in previous EIP program
- Delay between diagnosis and enrolment in the EIP
- Maintenance of hearing technology



## Clinicians' and Parents Perspectives on Family Involvement (FI)

### Variables related to the HL and the EIP continued

- Parent's aspirations for the child with hearing loss
- Participation in services related to the EIP
- Perception of parents' impact on the child's EIP outcome
- Awareness of resources available for children with additional special needs
- Participation in resources available for children with additional special needs
- Parental attitude toward child's hearing loss
- Parental perception of child's needs
- Parental understanding of "involvement" in the EIP
- Parental feeling of implication in the EIP (being a leader or being led)



## Clinicians' and Parents Perspectives on Family Involvement (FI)

### Variables related to Parent-Child Interaction

- Parent-child relationship
- Amount of unstructured time spent with the child
- "Goodness of fit" between personalities



## Clinicians' and Parents Perspectives on Family Involvement (FI)

### Variables related to Ecological Factors

- Presence of a supportive and participating network
- Geographical location of residence
- Consistency in communication mode used with the child outside of the home



## Clinicians' Perspectives on Family Involvement

### Clinicians' Definitions of FI

Definitions of FI varied slightly across groups of clinicians but contained several key components that included:

- involvement in audiological management
- working collaboratively with the professional
- engaging in effective and meaningful communication with the professional
- active and ongoing participation in their child's program and in intervention sessions
- working with their child at home to support the EIP
- knowledge of the EIP and the goals set out for their child
- maintaining a balance between 'work' and 'play' in home activities



## Clinicians' Perspectives on Family Involvement

### The Importance of FI

- All clinicians:
  - agreed that parental involvement was essential to child outcomes
  - used primarily informal measures to assess FI
    - homework completion
    - session attendance
    - parents' questions during sessions
    - participation in sessions



## Clinicians' Perspectives on Family Involvement

### Perceived Benefits of FI

- increased generalization of speech and language skills
- increased progress in therapy
- increased motivation
- the empowerment of the parent and the child



## Clinicians' Perspectives on Family Involvement

### Implications for the Lack of FI

- lack of child progress
- decreased generalization of skills learned in therapy
- decreased effectiveness of therapy
- reduced rapport between parents and professionals



## Clinicians' Perspectives on Family Involvement

### Factors Perceived as Influencing FI

- parent's motivation
- parental stress levels
- parent's language skills
- parental acceptance of the hearing loss
- cultural and second language issues
- parental education levels
- familiarity with the health care and educational systems
- other time commitments
- parent's confidence in working with their child



## Clinicians' Perspectives on Family Involvement

### FI and Multicultural/ELL families

- Professionals reported that:
  - Minority language families often felt overwhelmed with the information and expectations associated with EIPs and school-based programs
  - The language demands of the intervention program had the potential to exceed the parents' second language abilities
  - Minority culture parents had differing expectations regarding the eventual benefits of programs and, in some cases, a lack of confidence with respect to program and involvement demands



## Clinicians' Perspectives on Family Involvement

### Clinicians Top 10 Variables Related to FI

- Parental attitude toward the child's hearing loss
- Parental aspirations for the child
- Quality of parent-child relationship
- Perception of ability to benefit from hearing technology
- Age at diagnosis
- Parental communication skills
- Parental perception of ability to impact on EIP outcome
- Stress Levels in the family
- Maintenance of hearing technology
- Perception of communication between parents



## Parents' Perspectives on Family Involvement

### Parents' Definitions of FI

- Key components of FI from the perspective of the parents included:
  - being an advocate for the child
  - learning how to provide language stimulation through play
  - active awareness and involvement in the therapy and in carry-over at home
  - learning about hearing loss
  - keeping up to date about changes in technology
  - interacting with other parents
  - interacting with a variety of professionals
  - involving family and friends
  - keeping track of new words and changes in communication abilities each week
  - understanding how interaction promotes language development



## Parents' Perspectives on Family Involvement

### Benefits of FI

- Increased awareness of the child
- Increased bonding
- Empowerment of self and family
- Developing confidence about decision-making related to therapy, technology, education
- Awareness of the child's development and achievements
- Generalizing therapy goals to everyday life
- Ensuring the best possible listening environment
- Learning to be a good role model for the child
- Pushing the child to reach their potential
- Supporting and being supported by other families of children with hearing loss



## Parents' Perspectives on Family Involvement

### Importance of FI

- PI is critical to speech, language and overall development
- PI must be there for progress to occur
- Parents learn to take on many roles
- Routines, structure and discipline are reinforced
- Helps child to prepare for school
- Prepares parents for advocacy roles
- PI predicts good outcomes for children
- Puts parents in contact with other families
- Without PI therapy has no real benefit



## Parents' Perspectives on Family Involvement

### Parental roles in FI

- Being a teacher, playmate, role model, therapist on a daily basis
- Advocating for programs, technology, smooth transitions
- Developing appropriate expectations for the child
- Being role models for parents of newly identified children
- Educating the general public about hearing loss, technology and the potential of children with hearing loss



## Parents' Perspectives on Family Involvement - Obstacles

- Parental sacrifices
  - Time to attend sessions and other appointments
  - Taking time off work to attend sessions
  - Financial repercussions
  - Being a stay at home mom is not possible for all families
  - Constant need to focus on communication is demanding ("punching bag", "slave")
- Mismatch between therapist and parents
  - Goals
  - Child/family personality
  - Therapist and family expectations of the child (standards too high, pushing too hard)



## Parents' Perspectives on Family Involvement – Obstacles continued

- Keeping up with new information, making time to read and research
- Constant need for advocacy and education of the public
- Attitudes toward second language issues by some professionals



## Summary of Parent's perspectives

### Parent's Top 8 (all rated as 2.0)

- Age at diagnosis
- Quality of parent-child relationship
- Maintenance of hearing technology
- Child's tolerance of hearing technology
- Role model for the child
- Consistency of use of hearing technology
- Parental attitude towards child's hearing loss
- Trust in the professional



## Summary of Parent's Perspectives

### Variables receiving a score of 1.85+

- Communication between parents
- Consistency of use of communication mode
- Parent's understanding of involvement
- Parent's perceptions of their child's needs
- Participation in services related to the IEP
- Satisfaction with services received
- Perceptions of the availability of supports and services



## Areas of Agreement in Top 10

- Parental attitude towards child's hearing loss
- Quality of parent-child relationship
- Age at diagnosis
- Maintenance of hearing technology
- Communication between parents



## Overall agreements

- All variables rated as 1.5 or higher in 4 areas: Parents, Child, HL & EIP, Parent-Child Interaction, and Ecological

### Parents

- Communication between parents
- Parents' Communication Skills
- Parents' coping style

### Child

- Age at diagnosis
- Consistent use of hearing technology
- Child's tolerance of hearing technology
- Childcare arrangements
- Perception of ability to benefit from technology



## Overall agreements continued

### HL and EIP

- Parental attitude toward the child's hearing loss (highest rating with lowest variability across both groups)
- Trust in the professional delivering the EIP
- Parental understanding of 'involvement'
- Maintenance of hearing technology
- Communication approach used
- Parental perception of ability to impact outcome
- Awareness of resources available to the family
- Parental aspirations for the child



## Overall agreements continued

### Parent-Child interaction

- Quality of parent-child relationship

### Ecological

- Consistency of use of communication mode
- Presence of a supportive and participating network



## Conclusions

- While there are some areas of agreement, there are also many areas of difference in perceptions of FI between clinicians and parents
- Parents appear to have a very clear idea of what FI means, what their roles are and how to participate in the EIP
- Parent's identify the need for advocacy as central to FI
- Clinicians rated 36/60 variables at 1.5 or higher
- Parents rated 33/60 variables at 1.5 or higher
- Consistency in 19/60 variables across both groups
- Parents rated more factors related to the HL and the EIP including family supports, resources, available services as higher in importance than clinicians
- Clinicians rate grieving and family stress as higher in importance than parents
- Clinicians attribute more importance to the language used in the home and issues related to ELL than parents



## Conclusions continued

- Some promising areas for future investigation
- Some areas identified as having a potential impact on FI and outcomes may be difficult to measure objectively
  - Parental attitude to the child's hearing loss
  - Quality of the parent-child relationship
  - Communication between parents
- The links between these variables and child outcomes have yet to be determined



## Limitations of the Study

- The sample of parents is small
- Participating parents may not be representative of the general population of parents of children with hearing loss
  - High levels of education
  - High SES
  - Percentage of English-first-language families
  - Percentage of two-parent families



## Results of a systematic review examining the role of family involvement in achieving communication outcomes for preschool children with hearing loss

Alice Eriks-Brophy  
 Vivian Gies  
 Rita Vis Dubé  
 Santiago Luna  
 Jan Lobban-Shymko  
 Janette Yuen



## Objective

- This systematic review examined the existing evidence supporting the role of family involvement as a predictive or a mediating factor in achieving positive speech and language outcomes for preschool children identified with hearing loss
- It also sought to examine the following questions:
  - How can parental involvement be measured objectively?
  - What specific parental behaviours are associated with improved speech and language outcomes in preschool children with hearing loss?
  - Are there cultural differences that might impact on family involvement and the outcomes of minority culture children?
  - What are the child, family, program and ecological variables that might influence involvement?



## Participants

This systematic review team consisted of:

- one university-based researcher
- two clinical consultants with expertise in the field of early intervention for children with hearing loss
- three student research assistants
- a panel of peer and consumer reviewers (still to come)



## Systematic Review Concept Map

| WHAT  | WHO   | EIPs   |
|---|---|--|
| <b>Parental involvement</b><br>parent/s (parent*)<br>mother/s (mother*)<br>father/s (father*)<br>family (fam*)<br>dyad/s (dyad*)<br>adult/s (adult*)<br>guardian/s (guardian*)<br>caretaker/s (caretaker*)<br>caregiver/s (caregiver*)<br><br><b>involvement</b> (involv*)<br>participation (participat*)<br>participate (participat*)<br>involve (involv*)<br>collaboration (collaborat*)<br>collaborate (collaborat*)<br>support (support*)<br>attachment (attachment*)<br>interest (interest*)<br>contribution (contribut*)<br>commitment (commitment*)<br>connection (connect*)<br>enthusiasm (enthusiasm*) | <b>Children with hearing loss</b><br>children child/children (child*)<br>infant/s<br>baby<br>babies<br>toddlers<br>preschool children<br>early childhood<br>JK<br>Pre-K<br><br><b>hearing loss</b> (hear* loss*)<br>deaf (deaf*)<br>deafness (deaf*)<br>hearing impairment (hear* impair*)<br>hearing impaired (hear* impair*)<br>hard of hearing (hard* of hear*)<br>deaf/ hard of hearing -----<br>auditory-verbal therapy (audi* verb* therap*) AVT<br>American Sign Language (americ* sign* language*) ASL (*)<br>Langue des signes Quebecois (*) LSQ (*)<br>total communication (total* communic*) (TC)<br>gestural communication (gestur* communic*)<br>manual communication (manual* communic*)<br>sign language (sign* language*)<br>aural communication (aural* communic*)<br>auditory oral communication (auditor* oral* communic*)<br>combined communication (combin* communic*)<br>oral communication (oral* communic*)<br>hearing disability (hear* disab*)<br>cochlear implant/s (cochlear* implant*) | <b>early intervention</b> (earl* intervent*)<br>treatment (treat*)<br>therapy (therap*)<br>treatment programs (treat* program*)<br>interventions (intervent*)<br>intervention programs (interven* program*)<br>assistance (assistance*)<br>aural-oral* (aural-oral*)<br>oral habilitation* (oral* habilitat*)<br>family-centred* (family-centred*)<br>oralism* (oralism*)<br>oral education* (oral* educat*)<br>deaf education* (deaf* educat*)<br>auditory-verbal therapy* (audi* verb* therap*)(AVT)<br><br><b>outcomes</b><br>language development (language* dev*)<br>communication development (communicat* dev*)<br>speech development (speech dev*)<br>social development (social* dev*)<br>emotional development (emotional* dev*)<br>articulation development (articulat* dev*)<br>literacy development (litera* dev*)<br>reading (read*)<br>achievement (achiev*)<br>phonological awareness (phonologic* aware*)<br>decoding skills (decod* skill*)<br>cognitive development* (cognitiv* dev*)<br>phonetic awareness* (phonet* aware*) |

## Databases searched

- PsychINFO
- MEDLINE
- CINAHL
- ERIC
- EMBASE
- HealthStar
- Amed

## Successful Search Strings

- The most successful search strategy in identifying documents related to the review was to use at least one word from each of the following sets of key words in the search string:
  - Parent, Involvement, Child, Hearing Loss & Outcomes
- "Parental involvement" was treated as a single key word
- Each key word was truncated to maximize the possibilities for each word

## Inclusion Criteria

- The research team developed a clear set of inclusion criteria for evaluating the retrieved documents based on author and title information
- A coding reliability of 92% across 4 coders was obtained for a random sample of documents contained in the initial database stored on RefWorks

## Inclusion Criteria Continued

- **Year:** 1990 -2009
- **Focus:** must be on deaf/hard of hearing children
- **Age:** must be 5 years and under
- **Communication outcome:** Must focus on outcomes of some aspect of communication development including speech, language, literacy, social development; emotional development was considered if there was a link to communication outcomes
- **Parents:** Must be focused on parents/caregivers
- **Involvement:** Must focus on some form of involvement on the part of the parents/caregivers



## Search Statistics

|                            |      |
|----------------------------|------|
| Total relevant documents : | 570  |
| Total duplicates:          | 477  |
| Total without duplicates:  | 93   |
| Total documents retrieved: | 43*  |
| Total documents retained:  | 21** |

\* coding reliability for inclusion across 2 raters = 93.7%

\*\* determined by consensus between 2 raters



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## Documents Retrieved

|                     |    |
|---------------------|----|
| • Books             | 7  |
| • Dissertations     | 2  |
| • Journal articles  | 31 |
| • Technical reports | 3  |



## Systematic Review Findings

- Data extraction based on the 21 articles retained using a clear set of inclusion criteria indicates that none of these documents contain statistical information appropriate for inclusion in a meta-analysis, the 'gold standard' for systematic reviews [an 'empty review'].
- Empirical evidence to support the predictive value of parental involvement on outcomes in speech and language development for children with hearing loss remains primarily descriptive and anecdotal.
- Findings of the systematic review *imply* that parental involvement is an important/determining factor in achieving positive speech and language outcomes for children with hearing loss.
- Findings indicate that this effect is currently not objectively quantifiable (ie. measurable) and therefore not predictive of outcomes at the present time.



## Results from Desjardin (2005)

- Results obtained using the SPISE indicate a statistically significant difference between mothers of children with cochlear implants and mothers of children with hearing aids. The mothers of the CI children perceived themselves as being more involved in their child's sensory device use and speech-language development.
- The two groups of mothers did not differ in their reported involvement in checking and putting on their child's sensory devices and in the amount of time that the child used the device daily and weekly.
- No standardized assessments were administered.
- No direct links between FI and outcome can be assumed.



## Results from Desjardin (2006)

- Maternal perceived self-efficacy and involvement as measured by the SPISE were related to the use of two specific higher level facilitative language stimulation techniques (recast and open ended question) and one lower level technique (closed-ended question) during mother-child interactions for children wearing hearing aids was examined.
- The children's communication outcomes were not documented.
- No direct links between PI and outcome can be assumed.



## Results from Desjardin & Eisenberg (2007)

- Maternal involvement and self-efficacy relating to children's speech-language development as measured by the SPISE were positively related to mother's quantitative and qualitative linguistic input.
- After controlling for child's age, mother's MLU and two facilitative language techniques (recast and open-ended question) were positively related to children's language skills based on the performance on the Reynell.
- Mothers perceived involvement and self-efficacy in developing their child's speech-language skills were related to the ways in which they interacted with their children.
- Results suggest a link between PI and early language outcomes but no causal or predictive relationship can be assumed



## Descriptive Findings

- Measuring parental involvement
  - Moeller (2000)
  - Desjardins (2005; 2006)
  - Eriks-Brophy (grey literature)
- Parental behaviours facilitative of speech and language development
  - homework completion
  - follow through on session information
  - session attendance
  - questions during sessions
  - active participation in sessions
  - confidence with and maintenance of hearing technology
  - parental feelings of self-efficacy
  - parental understanding of their role in the intervention approach
  - parent's confidence in working with their child to develop speech and language skills



## Factors Influencing FI

- parental acceptance of the hearing loss
- cultural and second language issues
- socio-economic status
- parental education levels
- family structure and the presence of other siblings in the family
- parent's motivation
- the presence of a supportive network for the family
- the child's temperament and attitude
- familiarity with the health care and educational systems
- time commitments outside of the early intervention program
- parental confidence in working with their child



## Cultural Differences

- One study identified by the review indicates that the attitudes, perceptions, and values of education among immigrant parents of children with hearing loss differs from those held by the majority culture. This study involved Hmong parents.
- Hmong parents valued education and wanted to be involved in their children's programs, yet they were unsure of how to become involved, had limited knowledge of the practices and procedures inherent to their child's programs, and felt the language and customs of the educational and intervention context in which they found themselves to be "entirely alien".



## Cultural Issues in Oral Language Intervention: Examining family involvement in minority language families (A study in progress)

Alice Eriks-Brophy  
Carl Corter  
Anita Bernstein  
Vicky Papaioannou



## Research Objectives

- To examine the experiences of 60 families of children with PBHL participating in oral language intervention
- To compare the perceptions of language socialization and involvement in language intervention of 10 children with congenital moderate to profound PBHL from the Euro-Canadian majority culture and 50 minority culture children enrolled in oral intervention from five language groupings (Mandarin/Contonese, Arabic, Vietnamese, Urdu, Somali)
- To explore any mismatches in parent language socialization practices and perceptions of involvement with intervention practices
- To obtain new information about cross cultural perceptions of disability.



## AVT and Language/Cultural Minority Families

- A number of important issues point to potential difficulties for parents with minority culture backgrounds participating in AVT, as well as the possibility of differential outcomes of AVT for minority versus majority culture preschool children with PBHL.
- These issues revolve around cultural differences in:
  - language socialization practices and activities promoted in AVT and parental beliefs surrounding child rearing and interaction, that might be expected to have a direct impact on parental perceptions of the 'goodness of fit' of the AVT program
  - perceptions of disability, that might influence parents' ability to benefit from the counselling and guidance sessions inherent to AVT
  - differences in parental involvement (PI)



## Minority Language Issues

- Children with hearing loss from racial, linguistic, and ethnic minority backgrounds are at considerable risk for differential academic achievement.
- Their educational performance is significantly lower than that of the population of children with hearing loss as a whole, who are already reportedly performing at levels lower than those of their hearing peers



## Language Socialization Practices

- An extensive body of educational literature points to discontinuities between language socialization practices in the home and discourse practices valued in educational interactions as an explanation for reduced academic achievement for minority children enrolled in North American schools.
- These value orientations may conflict with the language socialization patterns and developmental goals of families from minority culture backgrounds who may nevertheless desire that their children become oral language users.



## Cultural Differences in Perception of Disability

- There is also considerable evidence pointing to important cultural differences in parental reaction to childhood disability in general, and to deafness in particular.
- These reactions might include:
  - a strong social stigma associated with the hearing loss
  - the search for a cure through traditional healers and folk rituals, remedies and/or religion
  - beliefs related to the etiology of the child's hearing loss
- These cultural differences might be expected to have an impact on:
  - parents' perceptions of the 'goodness of fit' of AVT to their and their child's needs
  - the effectiveness of counseling and intervention
  - their willingness and ability to participate in the above activities



## Implications of Findings

- The ultimate goal of the project is to enhance cultural sensitivity and appropriateness in service delivery and increase the quality of life of families of children with hearing loss enrolled in AVT.
- Results from the converging measures of this study have implications for a multitude of EIPs for children with communication disorders other than hearing loss that involve parents as primary language facilitators.



## Conclusions across studies

- Researchers and clinicians in the domain of childhood communication disorders in general and in childhood hearing loss in particular agree that early intervention programs that directly involve parents result in improved speech and language outcomes for the child.
- The predictive value of parental involvement on speech and language outcomes for children with hearing loss is an important question for researchers and for clinicians, as it has the potential to influence government policy on funding for provision for early intervention speech-language pathology services using a family-based model.



## Conclusions across studies continued

- It is important to understand and document the parental behaviors that have positive mediating effects on communication outcomes for children with hearing loss.
- Understanding this would enhance the speech and language development of children with hearing loss, and would provide specific suggestions for parents to help them work more effectively with own children in increasing their communication abilities.
- It is likely that there will be important differences in parents' versus clinicians' perceptions of parental involvement.



## Conclusions across studies continued

- We must take into consideration areas of cultural difference in the understanding of dimensions of family involvement.
- The examination of perceptions of parental involvement of families of preschool children representing minority culture and language backgrounds is of considerable importance.
- Additional information is needed to understand family involvement and, through such understanding, enhance family-centered early intervention services for children with hearing loss.
- The best evidence in favor of the importance of FI in early intervention must be:
  - measurable
  - unbiased (if FI truly is to become accepted as a predictive factor of outcome)
- We still have a lot of work to do!



## Suggested Further Reading

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