Communication Intervention for Preschool Deaf Children (CIPDEC)

Rachel Rees
CIPDEC Project

UCL:
Rachel Rees, Merle Mahon, Josephine Marriage, Caroline Newton, Gordon Craig

City University:
Rosalind Herman

http://www.ucl.ac.uk/silva/cslir/projects/ongoing/cipdec/
Aims

- To illustrate
  - the importance of describing approaches in terms of specific practices
  - That efficacy studies are not the only way of improving services providing intervention

- To describe the initial findings of the project
While appropriate amplification is undoubtedly important in enhancing deaf children’s access to spoken language, active family involvement in intervention programmes is also a key predictor of language outcomes (Moeller, 2000).
Intervention with families of pre-school deaf children includes:

- orientation to and maintenance of amplification devices,
- parent counselling
- family administrative support
- interventions that directly address speech and language development through interaction between parent/carer and child.
Reasons for starting project:

- A number of different approaches to communication intervention were reported to be used with families of deaf children.
- LEAs, professionals and parents of deaf children were seeking information about the differences between approaches and their effectiveness.
- Any efficacy studies on approaches had been conducted by the organisations who developed the approach.
- No studies have been conducted to compare the approaches.
CIPDEC Project

Are different approaches being used? Which ones are used more commonly?

Stage 1:
Survey to the 15 Cochlear Implant centres in England to discover which treatment approaches were employed.
Common Treatment Approaches

- Auditory Verbal Therapy (www.avuk.org and www.listeningandlearninglanguage.org)
- Hanen Programme (www.hanen.org)
- Parent–Child Interaction Therapy (Kelman and Schneider, 1994)
- Combinations of approaches

Local services tend to use a more eclectic approach and many use the government funded Early Support Programme
Next set of questions:

- What specific intervention practices are employed by each approach?
- How precisely can each approach be defined in terms of specific practices?
- Are there areas of overlap?
- Are there some practices that are only linked to a particular approach?
Stage 2: Questionnaire for all professionals providing CIPDEC in England/UK to establish the specific practices employed.

Background Questionnaire aims to:
• Identify training and experience and any treatment approaches used and beliefs held

Main Questionnaire aims to:
• Identify the practices used by that professional
Expert Review of Questionnaires by:

- speech and language therapists involved in the development of Hanen and PCI therapy for hearing children
- a speech and language therapist who developed an approved version of the Hanen programme for families of deaf children (Emma Mottram)
- teachers of the deaf
- auditory verbal therapists
- speech and language therapists specialising in working with deaf children
- academics conducting research in deafness
Main Questionnaire 1: Strategies parents are encouraged to adopt

Please consider how often you would encourage parents to adopt the strategy and then tick the relevant box by choosing the one of the following:

- I would hardly ever / never encourage this strategy (approximately 0–10% time) or would encourage no or very few families to adopt it (approximately 0–10%)
- I may encourage this strategy but generally would not (approximately 10–30% time) or may encourage certain families to adopt it (approximately 10–30%)
- I encourage this strategy (approximately 30–60% time) or encourage some families to adopt it (approximately 30–60%)
- I often encourage this strategy (approximately 60–90% time) or encourage many families to adopt it (approximately 60–90%)
- I would always or nearly always encourage this strategy (approximately 90–100% time) or encourage all/ almost all families to adopt it (approximately 90–100%)
Examples of Strategies:

- Use naturally occurring situations (*e.g.* bath time, mealtimes, shopping) as opportunities for communication
- Watch their child carefully to notice their focus of attention and any attempts to communicate including non-verbal behaviours (*e.g.* pointing, gaze)
- Talk about the child’s focus of attention
- Engage in activities that encourage joint attention (*e.g.* *talking about pictures in books*)
Examples of Strategies

- Target words (i.e. select specific words for parents to focus on) at ANY stage of language development (i.e. from “no spoken words”)
- Expect and aim for the child to produce targeted words in the first or second session in which they are modelled by the parent in context
Examples of Strategies:

- Deliberately use strategies to make sure the child is able to see the adult’s face to get information about what they are referring to (e.g. waiting until they look, holding an object near the face)

- Deliberately use strategies to make sure the child is not able to see the adult’s face (e.g. talk when the child is looking at an object, cover mouth) to encourage them to use their hearing
Examples of Strategies:

- Use symbolic noises and animal sounds (e.g. *chch*, *brmbrm*, *moo*) to embellish play/conversation/storytelling (e.g. *Adult*: “Here comes the train, *ch,ch,ch*”, *Adult*: “*Moo said the cow*”)

- Focus specifically on encouraging the child to build up a range of sound–object associations (e.g. *brrr* for car, *ptpt* for boat, *moo* for cow, *sss* for snake, *chch* for train) before the child understands or uses spoken words.
Meins et al (2002): Performance on theory of mind tasks at 45 and 48 months of age were positively correlated to mothers’ use of “mind reading” comments with infants of 6 months. 

Strategy: Use utterances that attempt to “mind read” the child (e.g. “You know that’s a helicopter – don’t you!”; “I don’t think you like that cake!”)
Main Questionnaire 2: Methods used to encourage parents to adopt strategies

Please consider how likely you are to use the methods listed using the following ratings:

- I would hardly ever / never use this method (approximately 0–30% time) or would use with no or very few families (approximately 0–10%)
- I may use this method but generally would not (approximately 10–30% time) or may use this method with certain families (approximately 10–30%)
- I may use this method (approximately 30–60% time) or may use this with some families (approximately 30–60% families)
- I would often use this method (approximately 60–90% time) or would use with many families (approximately 60–90% families)
- I would always or nearly always use this method (approximately 90–100% time) or would use with most families (approximately 90–100% families)
Examples of Methods

- Prompt the parent/carer as they are currently interacting with their child (e.g. “Wait for Susie to take a turn and, when she does, respond”)
- Point out positive strategies used by the parent/carer and their effect on the child when watching a recording (e.g. “When you waited for Susie to take a turn she responded by pointing to what she wanted and vocalising”)
- Encourage parent to reflect on their interaction strategies and the effects on the child
- Model a strategy for parent/carer to comment on and/or copy
- Record models of practitioner using strategies for the parent to take home and study
Initial Results: Professionals and Approaches

Completed questionnaires were returned from 120 professionals engaged in communication interventions:

- 2 auditory verbal therapists
- 1 learning support assistant
- 70 speech and language therapists
- 47 teachers of the deaf.
Professionals were asked to rate the degree to which approaches informed their practice.
Percentage of professionals rating approach as 1 ("This is my main approach") and 2 ("I take many ideas from this approach")

<table>
<thead>
<tr>
<th>Approach</th>
<th>% rating as 1</th>
<th>% rating as 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditory Verbal Therapy</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Guidance from Monitoring Protocol</td>
<td>23</td>
<td>25</td>
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<tr>
<td>Hanen</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>Parent Child Interaction Therapy</td>
<td>35</td>
<td>29</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>4</td>
</tr>
</tbody>
</table>
Initial Results: Strategies and Methods

Professionals were asked how often they would encourage a parent to adopt different strategies.
EXAMPLES of high agreement: Strategies that over 85% of professionals would encourage parents to adopt 90–100% of the time:

- Use naturally occurring situations as opportunities for communication
- Respond positively to all the child’s attempts to communicate
- Engage in activities that encourage joint attention
- Use words and referents alongside their meaning to help link words with meanings
- Encourage all members of the family to interact with their deaf child
EXAMPLES of low agreement: Strategies that over 30% of professionals would encourage parents to adopt 30–100% of the time but over 30% of professionals would generally not or never encourage parents to adopt:

- Target specific words for parents to focus on at any stage of language development (i.e. from “no spoken words”)
- Deliberately use strategies to make sure the child is not able to see the adult’s face for information about what they are referring to
- Encourage child to repeat a word or utterance more clearly
- Instruct the child to repeat symbolic noises
CIPDEC Project: Next Steps

- complete analysis of questionnaire data
- an investigation of the current evidence base (theoretical rationale) for practices
- focus groups to discuss best practice with parents and professionals
  - including application for Beacon Bursary from the UCL Public Engagement Unit to organise an event for parents of deaf children with the National Deaf Children’s Society
Current evidence base (theoretical framework) for a selection of strategies:

- matching input to child’s focus of attention (joint attention)
- shortening and simplifying utterances in line with child’s language level
Evidence for effects of joint attention with hearing children:

- Children who engage in more joint interaction with their mothers have larger vocabularies between 12 and 18 months (Tomasello and Todd, 1983)
- 12 month olds whose interactions with their mothers include more joint attention manifest larger comprehension vocabularies at 22 months (Akhar, Dunham and Dunham, 1991)
Hoff and Naigles (2002): Recorded mother–child dyads for 63 children between 18 and 29 months. They measured:

- joint attention,
- “data providing properties” of input (e.g. number of words, types of words, MLU) and
- children’s vocabulary diversity.
Findings:
At this point in language development the degree of joint attention had little influence on the children’s vocabulary. The diversity of the children’s vocabulary was more strongly influenced by:
* Lexical richness and syntactic COMPLEXITY of the mother’s speech.
Longer utterances may provide more sources of information about the word e.g. “Look at that cat with his long whiskers jumping so high!”

Hearing a word in different syntactic frames can give clues about its meaning:

- “the dog’s *eating* his dinner”,
- “don’t *eat* that!”
- “she likes *eating* pasta for her dinner”
Interestingly,

36% of professionals said they would hardly ever/never encourage this strategy:

Use utterances that attempt to “mind read” the child (e.g. “You know that’s a helicopter – don’t you!”, “I don’t think you like that cake!”)
Advocating a “coaching” approach, rather than a “traditional” approach where the focus is on the parents’ skills (rather than the child’s skills) where the professional (rather than the parent) is in the wings.
Summary and Conclusions:

- Most professionals working with families of deaf children use a combination of approaches.
- In terms of specific practices employed, some have high levels of agreement and some low.
- There is a need for:
  - parents’ perspectives on the different approaches and practices.
  - discussion of the evidence base for the practices employed (We need to know *how and why* a practice may work (Bernstein Ratner, 2006)).