

## The Effects of Parent-Implemented Communication Intervention for Toddlers with Language Delays

Megan Y. Roberts, PhD, CCC-SLP  
Northwestern University  
ei.northwestern.edu

## Disclosures

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## Goals for Today!

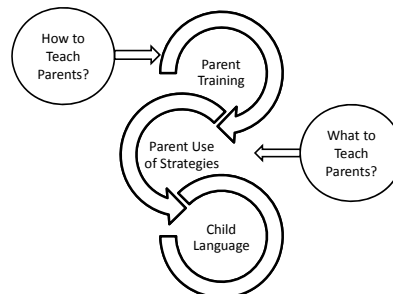
- Review evidence supporting parent-implemented interventions
- Summarize effective language facilitation strategies
- Discuss how to build a partnership with families
- Explain methods to teach parents

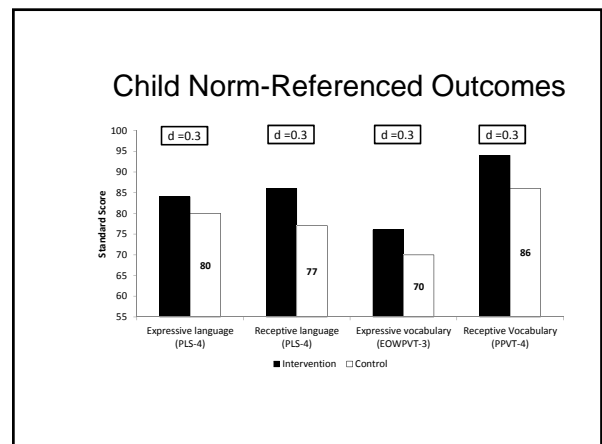
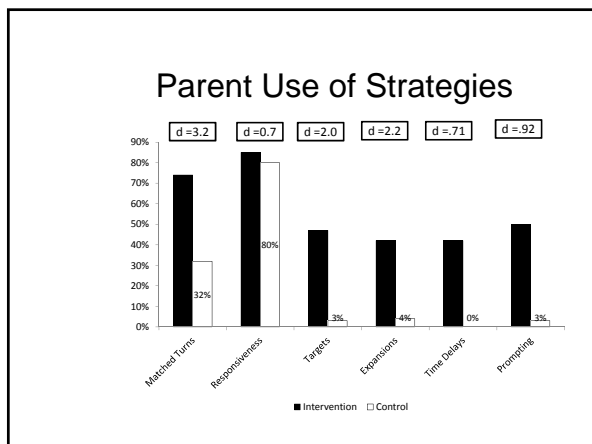
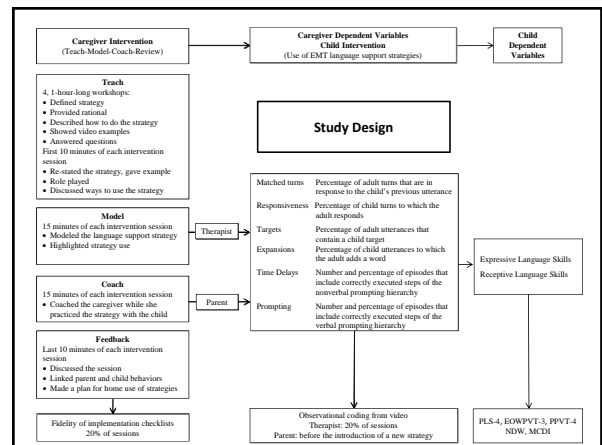
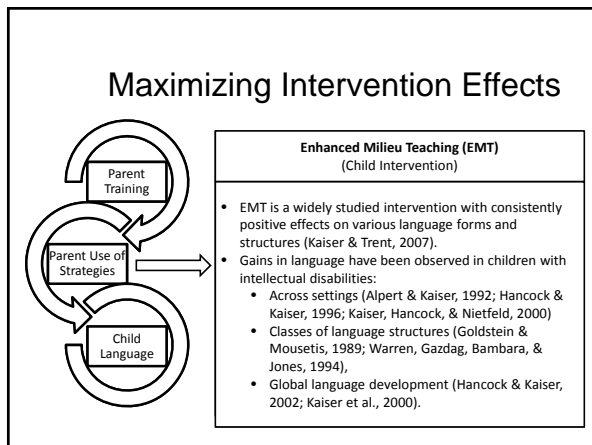
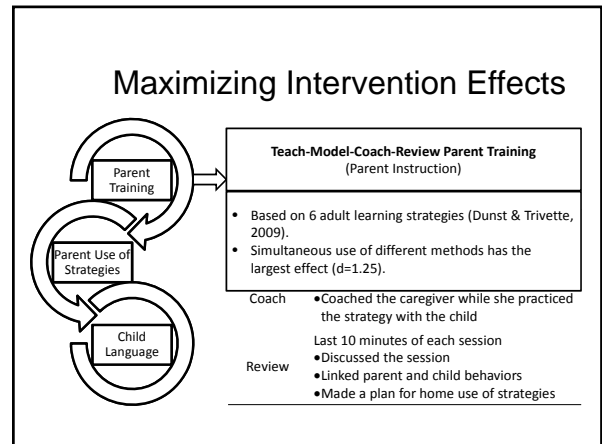
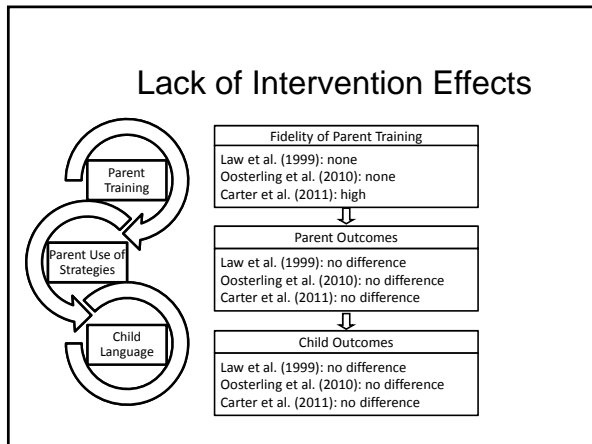
## Introductions

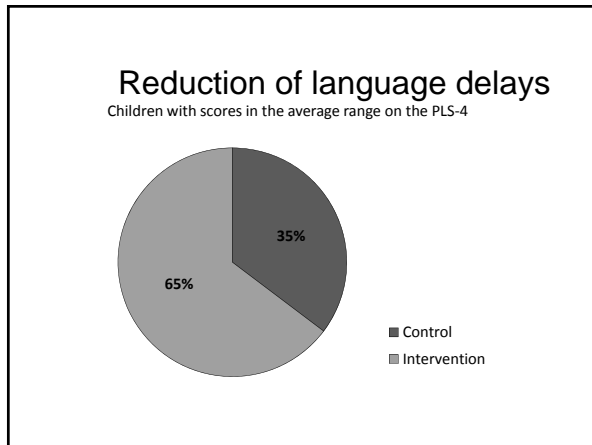
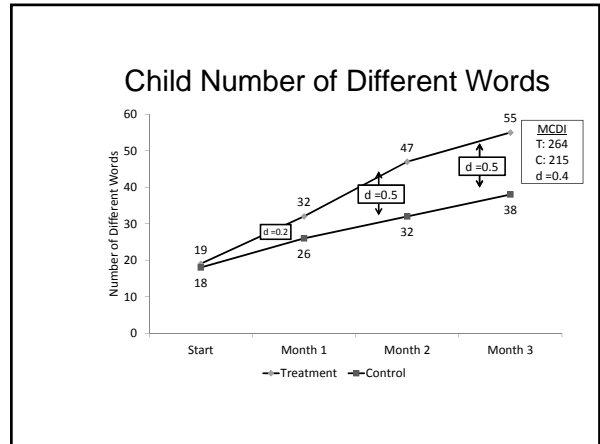
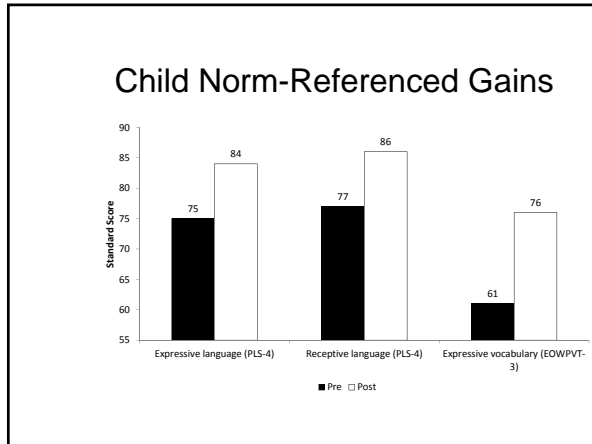
- What kinds of kids are on your caseload?
- What are you hoping to learn today?
- Any particularly challenging situations?
- How do you involve families in intervention?
- Why do we want to include parents in intervention?

Research!

## A Cascading Intervention Model

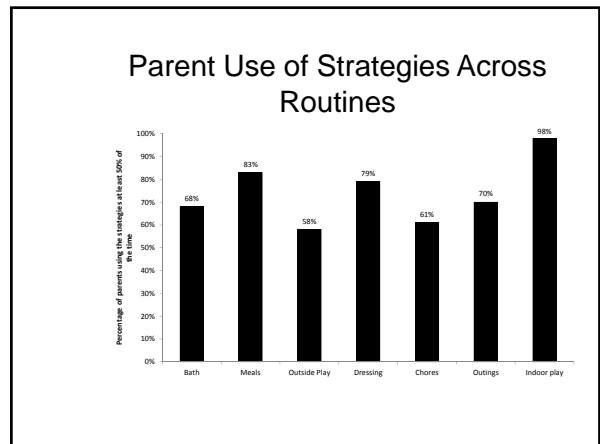






- ### Overall Parent Satisfaction
- Helped their child's language skills: 98%
  - Level of comfort using the strategies
    - Somewhat comfortable: 8%
    - Very comfortable: 92%
  - Average amount of strategy use: 17 hrs (range: 2 to 77, SD=18)
  - Taught the strategies to another caregiver: 98%
  - Preference for intervention location
    - Clinic only – 2.5%
    - Clinic + home – 95%
    - Home only – 2.5%

- ### Parent Satisfaction with Specific Strategies
- Parent teaching strategies parent found most helpful
    - Practice with coaching (78%)
    - Observing (78%)
    - Workshops (35%)
    - Role playing (20%)
  - Language strategies parents found most effective
    - Responding
    - Matched turns
    - Expansions
    - Targets
    - Prompting
    - Time Delays



## New Study

(R03DC012639)

- To examine the effects of *Pre-Implantation Communication Intervention (PICT)* on the prelinguistic communication skills of children with CIs prior to implantation.
- To examine effects of PICT on parents' use of language support strategies.
- To examine the effects of PICT on spoken language development 6 months and 12 months following implantation.

## Design

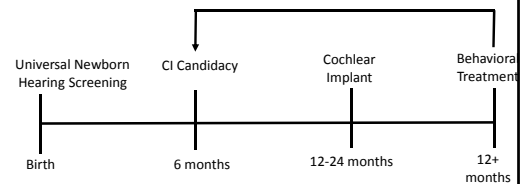
- Children with HL are randomly assigned to:
  - PICT: 6 months of intervention (once weekly for 1 hour)
  - Business-as-usual (BAU) control group
- Additional sample of children with NH
- Children will be assessed:
  - At the start of the study
  - 1 month prior to implantation (6 months later)
  - 6 months after implantation
  - 12 months after implantation
  - Home observations will be collected monthly

## Participants

- 19 children
- Average age of 12 months (sd = 6 months)
- 37% female
- Average non-verbal cognitive score of 50 (sd= 18)
- Average income = \$99,657 (sd=67,050)
- Level of hearing loss
  - Moderate = 39%
  - Moderate-severe = 5%
  - Severe = 17%
  - Severe-Profound = 17%
  - Profound = 22%

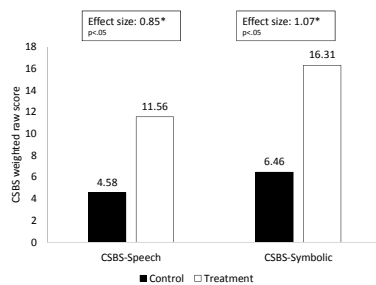
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## When does treatment occur?



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## Effect on Prelinguistic Communication

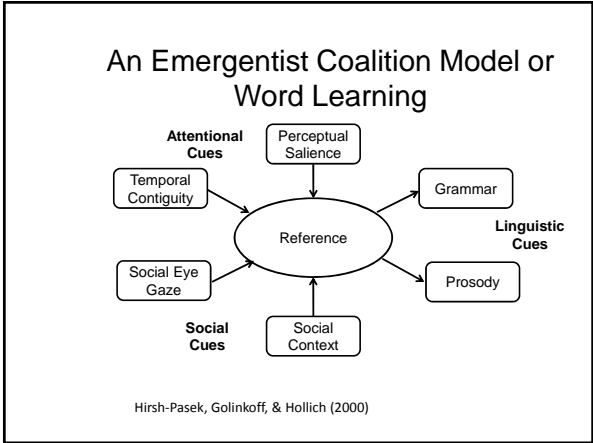


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## Steps to Working With Parents

- ### How to Include Parents in Intervention
- Step 1: Understand how children learn language
  - Step 2: Build positive relationships
  - Step 3: Teach a specific strategy
  - Step 4: Model the strategy
  - Step 5: Coach the parent
  - Step 6: Review the strategy use/session
  - Step 7: Make a plan for everyday use
  - Step 8: Monitor parent and child progress

### How do children learn language?



### From Word Learning Cues to Intervention Strategies

	Contingent Responsiveness	Matched Turns	Mirroring & Mapping	Expansions	Language Targets	Verbal and nonverbal prompts
Attentional	√	√	√	√		
Linguistic			√	√	√	√
Social	Parent as the primary interventionist					

- ### Language Facilitation Strategies
- Responsive Interaction Strategies: Basic
    - Play and Engage
    - Notice and Respond
    - Take Turns
    - Mirror and Map
  - Responsive Interaction Strategies: Advanced
    - Modeling and Expanding Play
    - Modeling and Expanding Communication
  - Prompting Strategies
    - Nonverbal prompting
    - Verbal prompting

- ### Strategy 1: Play and Engage
- Be at the child's level.
  - Do whatever the child is doing.
  - Follow the child's lead.
  - Avoid directions and let the child lead the play.
  - Avoid questions and let the child initiate the communication.
  - Choose toys that are interesting and engaging.
  - Put away toys that aren't being used.
  - Substitute undesired activities with desired activities.

### Strategy 2: Notice and Respond to Communication

- Notice and respond every time the child communicates.
- Respond by talking about what the child is doing.
- Language is most meaningful when it's related to what the child is doing OR in response to what the child is communicating.
- Goal: respond to 90% or more of the child's communication.

### Strategy 3: Take Turns

- Take turns communicating with the child.
- Allow time for the child to communicate.
- Play a game of "communication catch"
  - Child communicates
  - Adult responds (and waits)
  - Child communicates
  - Adult responds (and waits)
- Only say something after the child communicates.
- Goal: 75% (75% of what you say should be "matched" or in response to the child's communication).



### Strategy 4: Mirror and Map

- Use mirroring and mapping when the child is not communicating.
- First imitate (mirror) the action and then label (map) the action with words.
  - Child : {feeds baby}
  - Adult: {feeds baby} we feed the baby
- Use two sets of materials or act together on one
  - May increase engagement

### Strategy 5: Model and Expand Play/Routines

- Continue to follow the child's lead.
- Set a new toy object in sight or model a new action and WAIT to see if the child shows interest.
- Do what the child does and try to add a different action.
- If the child shows interest, model a new play action with the object.
- As always, follow the child's lead and if the child is not interested, try again later with a different object or action.
- Modeling new play

### Strategy 6: Modeling Language Targets

- Pick targets based on the language the child is already using and what the child should learn next
- Goal: 50% of what you say should be one of the child's targets:
- 50% should be slightly higher than the child's current targets
  - 1-2 words above his/her level
  - All words should be teaching words (nouns, verbs, modifiers)

### Strategy 7: Expanding Communication

- When the child communicates, imitate his/her communication and add target words.
- Words
  - Child: ball
  - Adult: roll the ball
- Vocalizations
  - Child: {says "ah" and is pointing to cup}
  - Adult: {point to cup} cup
- Point/reach:
  - Child: {points to/reaches for baby}
  - Adult: {points to baby/reaches for baby} baby
- Show
  - Child: {hold up block}
  - Adult: {points to block} block
- Goal: at least 40% of child communication.

### Strategy 8: Nonverbal prompting

- Non-verbal tasks that encourage the child to communicate with you.
  1. Set up the opportunity to encourage the child to communicate
  2. Wait until the child communicates (gestures, vocalizes, says a word).
  3. Expand this communication with a target.
- Inadequate proportions
- Assistance
- Waiting with routine/cue
- Choices

### Strategy 9: Verbal prompting

1. Wait for the request or use an nonverbal prompting strategy to get a request
2. Wait for the child to respond (if no response, abandon the prompt since the child isn't interested, but don't give either object)
3. If the child does not use a target, say "tell me what you want" OR " \_\_\_\_ or \_\_\_\_" (for choices)
4. If the child still doesn't say the target, give model ("say") up to 2 times if he doesn't use a target.
5. Stop prompting after the child says what you wanted him to say.
6. Give the child enough time to respond (5 seconds) before giving another prompt.
7. End each prompting episode by giving the child the requested object or action.
8. Expand if the child says the target; Repeat if the child does not say the target

### Verbal Prompting



### Step 2: Build positive relationships

- *How do we create strong teams and partnerships?*
- *What do you do when you and a provider don't agree?*
- *What are some communication strategies to help build positive relationships?*
- *How do we facilitate help-giving strategies?*

### Step 2: Build positive relationships

- Conduct RBI
- Discuss expectations for therapy
- Acknowledge child and family strengths
- Solicit parents' opinions and ideas
- Seek understanding
- Acknowledge and respond to feelings

### Routines Based Interview

(McWilliam, 2006)

- A semistructured interview for the purpose of selecting functional outcome goals for intervention and to establish a positive relationship with the family
  - Main concerns
  - Go through the day by routine
  - Star concerns
  - Get satisfaction ratings
  - Family choose goals
  - Prioritize goals

## Purpose of RBI

- Establish report
- Describe features of early intervention
- Gather information about the child and family's everyday routines and activities
- Learn about the family's support systems
- Assess strengths and needs
- Identify functional outcomes
- Collaboratively plan and write strategies/activities
- Help identify ways to determine progress toward achieving each outcome.

## Benefits of RBI

- Family "talks more" at IFSP meeting
- Outcomes are more specific
- Outcomes are truly functional to child and family
- Outcomes are worded in everyday language
- Outcomes are not overly discipline specific

## What are routines?

- Naturally occurring activities –
  - NOT activities the professional implements with the family.

## Main Elements

- Explain purpose
- Ask about main concerns
- Ask about how day begins
- Ask the following 6 questions for every routine
  - What's everyone doing?
  - What's [child] doing?
  - What's [child's] engagement like?
  - What's [child's] independence like?
  - What's [child's] social relationships like?
  - How satisfactory is this time of day?

## RBI Example

## Goal Writing

- Developmental : based on the model of typical development and goals are selected for those skills in a developmental hierarchy,
  - Consists of identifying and correcting deficits
  - The context of children's behavior is irrelevant
- Functional: based on promoting child and family success in current environments.
  - Addresses skills needed in the home, community or classroom.



## Functional Outcomes/goals

- Consider the child's behavior in 3 functional domains (contrast to traditional domains):
  - Engagement
  - Independence
  - Social relationships

## Goals should:

- Reflect the priorities of the family
- Are useful and meaningful: “why is the child working on this goal?”
- Reflect real-life situations
- Be free of jargon
- Be measurable
- Be addressed by multiple people at multiple times in the day during normal routines and activities

## Participation based outcomes

- Are applicable to almost all child outcomes.
- Are a way of ensuring that the context in which the skill is needed comes first
- Allows people working on the outcome understands that the desired behavior is not meaningful by itself (out of context)
- Prompt adults to work on the skill at the times of day when the skill is needed

## 8 steps to writing outcomes (From RBI)

1. Write the informal functional outcomes as you complete the RBI
  - More time with family
  - Eating independently
2. Determine the routines involved
3. Write “[the child] will participate in [those routines]”.
  - Lance will participate in breakfast, lunch and dinner.
4. Write “by \_\_\_ing” [insert desired behavior].
  - Feeding himself
5. Consider “we will know when he or she \_\_\_” and a measurable criterion
  - when he uses his hands with or without the spoon to put 10 bites in his mouth

## 8 steps to writing outcomes (From RBI)

7. Add a generalization criteria: state the extent to which the child should demonstrate the behavior across times, places, people, situations or materials
  - At breakfast, lunch, dinner (all 3 meals, total of 30 bites)
8. Add the criteria specifying the amount of time over which the behavior needs to be displayed
  - In one week

*Lance will participate in breakfast, lunch, and dinner by feeding himself independently. We will know he can do this when he uses his “hands” with or without a spoon, to put 10 bites into his mouth at breakfast, lunch and dinner in 1 week.*

## Goal-Writing Check

- Does the goal emphasize the child's participation in a routine?
- Does the goal state specifically what the child will do?
- Does the goal address a skill that is necessary or useful for participation in routines?
- Does the goal have a meaningful acquisition criterion?
- Does the goal have a generalization criterion?
- Does the goal have a criterion for the timeframe?

## Goals for Culley

- *Culley will participate in dressing by putting on her shirt independently. We will know she can do this when she puts her shirt on every day for 1 week.*
- *Culley will participate in dressing by making choosing between 2 outfits. We will know she can do this when she uses two words or more to choose her outfit every day for 1 week.*

## Goals Practice

- In the RBI, Sally said: "I wish Culley could tell me what she wants to eat instead of screaming"
  - GOAL:
- In the RBI, Sally said: "I wish Culley could follow directions to clean up her toys"
  - GOAL

## Setting up the relationship

- Setting expectations
- What do you want to want this relationship to look like?
- How will you resolve disagreements?
- How will you communicate information?
- How will you set goals?
- How will you make decisions?

## 7 principles of a partnership

- Competence
- Respect
- Trust
- Commitment
- Equality
- Advocacy
- Communication

## Professional Competence

- Provide an appropriate education: individualize instruction to meet family and child's needs and to provide appropriate services
- Continue to learn: seek feedback, be non-defensive
- Set high expectations: avoid false despair
  - "having a vision for the future fuels great expectations"
  - When you set expectations high, you will model for parents to have their own high expectations

## Respect

- Respect: "families and professionals regard each other with esteem"
- Honor cultural diversity and personal values
  - Learn about strengths
  - Determine preferences and priorities
  - Talk about assumptions
- Affirm strengths
- Treat people with dignity: treating them as honored, worthy, and esteemed.

## Commitment

- Commitment: more than just a work obligation
- Be sensitive to emotional needs
- Be available and accessible
- Go above and beyond

## Equality

- Equality: the condition in which families and professionals feel they have equal influence in a child's education
- Share power
  - “power-share partnership” – horizontal relationship in which individual energy becomes group synergy
- Foster Empowerment
  - How you and they can take action to get what both want for the child.
  - Be persistent in solving challenges
- Provide Options
  - Be flexible and creative

## Advocacy

- Advocacy: speaking out and taking action
- Prevent problems: don't “pass the buck”
- Pinpoint and document problems: develop a clear and detailed description of the problem (take data)
- Broaden alliances: align yourself with people that have similar concerns.
- Create win-win solutions: use communication skills to prevent, manage and peacefully resolve conflict

## Trust

- Trust: having confidence in someone's reliability, judgment and word.
- Be reliable: if you tell someone you will do something, follow through
- Use sound judgment: be competent and honest; use evidence-based techniques
- Maintain confidentiality: only share information with family and team members and only if it benefits the student (exception: mandated reporters)
- Trust yourself (self-efficacy): belief in one's capacity to carry out a course of action.

## Effective Communication

- Be friendly
  - Personal touch
  - Have conversations, not interviews
- Listen
  - Try to understand before stating own perspective
  - Convey interest, understanding, acceptance (not agreement or disagreement)
- Be clear
  - Avoid jargon and be able to explain concepts in different ways depending on each person
- Be honest
  - Be straightforward (no “sugarcoating”) but tactful
  - Convey hard-to-receive information in sensitive ways
  - When you don't know the answer to a question, don't pretend, just say you will find the answer

## Create opportunities for informal exchange

- Create opportunities for frequent and ongoing conversations (informal chats).
- May occur at the beginning or end of the session.
- Face-to-face communication is most effective.

## Verbal communication skills

- Questioning
  - Closed-ended questions: generally kept to a minimum
  - Open-ended questions: no single, correct answer
    - Ask a question: "How is Ginger's eating going?"
    - Giving a polite request: Tell me more about \_\_\_\_
    - Using an embedded question: "I'm interested in learning more about how Peter plays with his sister"
    - CAUTION: phrase in the positive rather than the negative (don't ask "what kinds of problems are you having?")
    - Be cautious about respecting privacy and work within each family's comfort level.
- Summarizing: restating what the other person has said, with an emphasis on the most salient thoughts and feelings
  - Longer than paraphrasing

## Solicit opinions and ideas

- Traditional approach
  - Parent: What should I do about \_\_\_\_?
  - Professional: I would recommend X. What you need is X.
- A more supportive approach
  - Parent: What should I do about \_\_\_\_?
  - Professional: "It sounds like you would like X changed" OR "it sounds like you would like more information on X"
  - Professional: "let's see if we can figure this out together." "what have you been doing so far?" "what about that isn't working" "why do you think it's not working?"

## Seek understanding

- Demonstrate a desire to understand where people are coming from—what's important and why.
- Taking the time to listen signals to the parent that you want to know what they are thinking, what is important to them and that you value their input.
- Understanding why a person wants to work on a specific goal may help us to provide more complete services
  - "what might change for your family, if we succeed in teaching him how to do X"
  - A direct "why" question may cause the family to be defensive.

## Parent-professional disagreements

- When disagreements arise, resist the urge to convince.
- Redirect toward understanding.
- Once people feel as though they have been understood and their opinions are respected, they are more willing to hear another point of view.

## Acknowledge and respond to feelings

- Less than 1% of professional behaviors is classified as "accepts feelings"
- When families do express feelings, professional try to "fix" things.
- Failure to respond sends a message that their feelings are foolish or unimportant to you.
- What do we say?
  - Reflect the parents feelings, "it must be really hard to \_\_\_\_" "I can only imagine how hard \_\_\_\_ must be"
- What don't we say?
  - "everything will be okay"
  - "look on the bright side"
  - Offer solutions

## Use enabling (help-giving) practices

- Creates opportunities for competencies to be acquired as part of solving problems
- Enhances of competencies that permit an individual to become better able to solve problems
- Promotes an individual's ability to attain what is in her best interest
- Permits a greater sense of control

## Help-giving as an evidence-based strategy

- Dempsey & Dunst (2004) found that enabling practices (independent variable) explained the most about parents empowerment (dependent variable).
  - As enabling practices increased, empowerment increased.

Table 2  
Results of multiple regression analyses, with empowerment as the dependent variable, for the US (N = 67) and Australian (N = 52) samples

	<i>B</i>	<i>SE</i>	<i>R</i> <sup>2</sup> change	<i>p</i>
<i>US sample</i>				
Parent age, employment/education status	0.234	0.055	0.055	0.31
Child's age	0.239	0.057	0.061	0.73
Frequency of contact	0.263	0.069	0.062	0.36
Level of control	0.208	0.063	0.054	0.35
Teaching practices	0.094	0.364	0.201	0.09
<i>Australian sample</i>				
Parent age, employment/education status	0.232	0.040	0.040	0.33
Child's age	0.275	0.075	0.031	0.22
Frequency of contact	0.176	0.143	0.007	0.06
Level of control	0.424	0.172	0.029	0.22
Teaching practices	0.625	0.242	0.221	0.02

## The impact of non-contingent helpgiving

- *“Seeing others get their children to do what they themselves have been unable to accomplish can directly threaten their sense of competence as a parent, and in some cases results in parents questioning their own child-rearing capabilities”*

## Step 3: Teach a Strategy

- Definition of the strategy
- Rationale for the strategy
- Practice the strategy through role playing

## Step 4: Model

- Therapist models the strategy and narrates when she is doing the target strategy

## Step 3: Coach

- Parent practices the strategy with the child and the therapist coaches the parent
  - Praise (e.g., “great responding,” “nice waiting”)
  - Specific constructive feedback (e.g., “Next time he points to the ball I want you to point to the ball and say ‘ball.’”)

## Step 4: Review

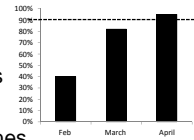
- After the practice session the therapist:
  - Asks the parent how he or she feels about the session and target strategy
    - “What did you think about today’s session?”
  - Describes how the parent used the target strategy
    - “I love how you responded every time Luke communicated, even when he pointed you gave him a word for what he was pointing to”
  - Connects parent use of the strategy with child’s communication
    - “When you expanded when Mary said ‘drive’ to ‘drive the car,’ she said ‘drive car!’ You taught her to say ‘drive car’ today!”

### Step 5: Make a Plan for Everyday Use

- Choose examples of communication targets that map onto home routines.
- Refer to home routines throughout the process when teaching and practicing new skills.
- Get parent feedback about use of strategies at home.

### Step 6: Monitor Parent and Child Progress

- Develop goals and criteria for parent and child behaviors
- Develop specific, easy to count measures
- Collect data
  - Your teaching
  - Parent use of strategies
  - Child progress
- Chart data with criterion lines
- Review data with parent



Questions? Comments?