Enhanced Milieu Teaching for Children with Significant Developmental Disabilities and Communication Needs

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Today’s Talk

• NDBIs
• An Up to Date View of EMT
• Adaptations of EMT
Learning Objectives

1. Define and describe Naturalistic Development Behavioral Interventions (NDBIs)

2. Define key strategies for teaching language and communication that compose Enhanced Milieu Teaching (EMT)

3. Explain the critical role of communication partners in EMT

4. Describe four key considerations in adapting EMT for individual children
Naturalistic Developmental Behavioral Interventions (NDBIs)

• Delivered in naturalistic and interactive social contexts, such as play and daily routines
• Involve child-directed teaching strategies
• Based on empirically-based intervention methods derived from both the principles of behavioral learning and developmental science
• Focus on teaching functional skills in context

Components Of NDBI

- Teach throughout the day, different environments,
- Embedded into activities and meaningful social interactions.
- Expand engagement
- Teach using direct instruction and functional consequences
- Use similar skills across learning targets

Schreibman et al. (2015)
NDBIs include:

- Individualized goals
- Data collection
- Child choice
- Environmental Arrangements
- Systematic instruction
- Natural, social consequences
NDBIs for Children with ASD

- Enhanced Milieu Teaching (EMT)
- Early Denver Start Model (EDSM)
- Incidental Teaching/Walden Model (IT)
- Pivotal Response Training (PRT)
- Joint Attention Social Play and Emotion Regulation (JASPER)

Schreibman et al. (2015)
EMT on the Continuum of NDBIs

Behavioral

Pivotal Response Training
Early Start Denver Model
Incidental Teaching/Walden Model

Developmental

EMT
JASPER
Where Are You as an Interventionist?

Behavioral Developmental

1 10

EMT for Children with Complex Communication Needs
Breakout Brainstorm

• Strengths of NDBIs for teaching communication
• Challenges associated for NDBIs
• Where do you place your view communication intervention on the behavioral developmental continuum?
Enhanced Milieu Teaching

- Naturalistic, conversation-based intervention for language and communication
- Uses child interests, focus of attention and initiations as opportunities to model, expand and prompt language
- Based in communicative interactions with partners
- Used as part of the everyday interactions in play and routines
- Evidence-based intervention with over 20 years of related research.

Communication as an Interactive Process
Communication and Language Forms
Communication Partners as Implementors
## EMT: NDBI Components

### Developmental Strategies
- **Dyadic Focus**
  - Partner responsiveness
  - Child focus + interests
  - Child communication attempts
  - Joint attention foundation
- **Linguistic Input**
  - Modeling
  - Expansions
  - Developmental sequence of skills

### Behavioral Strategies
- **Environmental Arrangement**
  - Context
  - Function
- **Functional Reinforcement**
- **Prompting**
  - Time Delays
  - Milieu Teaching Prompts
### EMT Principles and Strategies

1. **Promote adult-child communication *now***
   - Notice and respond
   - Follow the child’s lead and interests

2. **Increase child engagement with objects and activities**
   - Child preferred activities
   - Join the child in play and activity
   - Teach play and participation

3. **Expand the social basis of communicative interactions**
   - Arrange environment to increase engagement
   - Teach joint attention strategies
   - Balance turns (mirror and map)
   - Increase person engagement

4. **Teach child communication target forms to advance language**
   - Model
   - Expand
   - Prompt
## EMT Child Communication Goals

1. **Increase duration of engagement**
   - Social (joint engagement)
   - Objects (play)
   - Communicative (turns)

2. **Increase rate of communication**
   - Emphasize spontaneous social initiations

3. **Increase independence**
   - Initiated social communication
   - Generalization across contexts, people

4. **Increase diversity of communication**
   - More words and phrases
   - More functions (requests, comments, questions)
   - More word combinations

5. **Increase complexity of communication**
   - Prelinguistic to linguistic
   - Words to simple sentences
   - Complex sentences
   - Conversation + narratives
EMT Prelinguistic + Linguistic Goals

Social Foundations

Joint attention behaviors
Engagement/Responding

Vocabulary
Functional words
Labels/nouns
GAP verbs
Agents/objects
Locations
Specific verbs
Predicates/modifiers

Early Syntax
Noun verb diversity
Verb tense and agreement
Pronoun/noun replacement
Agent action
Object predicate

Decontextualized Language
Past events
Predicting future events

EMT for Children with Complex Communication Needs
EMT Communication Partner Skills

- Environmental Arrangement
- Play and engage nonverbally
- Respond to communication attempts
- Match/balance turns
- Model target language
- Expand child communication
- Prompt functional communication
EMT Teach-Model-Coach-Review Framework for Teaching Communication Partners

- **Teach**
  - Introduction

- **Model**
  - Illustration

- **Coach**
  - Practice

- **Review**
  - Evaluation
  - Reflection

- **Mastery**
Skills Needed for Caregiver Instruction

• Knowledge of the intervention, strategy, or skill
  • Skilled using the intervention with children
  • Can describe the intervention and rational fluently, give examples, and answer questions

• Ability to match intervention goals to caregiver goals

• Communication with parents
  • Ask open ended questions and wait time
  • Use understandable language
  • Have generally positive, accepting, and supportive affect

• Coaching and feedback skills
  • Analyze parent implementation
  • Coach to support parent
  • Give feedback that supports parent efforts and teaches skills
Breakout Brainstorm

- What challenges do you see in implementing EMT?

- Specific considerations for children with significant or complex communication needs?
Video Examples of EMT
Social Foundations: promote adult–child communication

• Notice & Respond and Follow the Child’s Lead

• Balance Turns
Social Foundations: Expand the social basis of communicative interactions

• Teach joint attention skills
Vocabulary & Early Syntax: Teach target forms

• Respond with Target Language

• Expand

• Prompt
Putting it all together
EMT in the real world (at home with toddlers with ASD)
Adapting EMT for Children with Significant Communication Needs
Individualized systems of instruction to optimize early development

- **Target Communication Skills**
  - Rate
  - Diversity & Complexity
  - Intelligibility
  - Mode

- **Support Communication Partners**
  - CORE EMT strategies
  - Linguistic Input at child’s level
  - Mode
  - Co-intervention approach

- **Increase Engagement**
  - Person
  - Object
  - Activity/Routine
  - Self-regulation
  - Social motivation

- **Teach Learning Strategies**
  - Imitation
  - Response to prompts
  - Discrimination
  - Generalization
What Children Bring to EMT

- Access to Input
- Intelligibility
- Fluency

- Person
- Object
- Activity

- Rate
- Form
- Functions
- Transparency to partners

- Imitation
- Auditory memory
- Efficiency

Mode

Engagement Strategies

Baseline Communication

Learning Strategies
EMT Modifications to Fit What Children Bring

- Provide alternative mode
- Signs
- SGD
- Teach partners mode

- Teach imitation
- Add discrete trials
- Increase dosage

- Teach play
- Increase person engagement
- Teach coordinated joint attention

- Teach joint attention skills
- Support partner comprehension

Mode

Baseline Communication

Engagement Strategies

Learning Strategies
# Examples of Population Specific Modifications

<table>
<thead>
<tr>
<th>Population</th>
<th>Mode</th>
<th>Engagement</th>
<th>Learning Strategy</th>
<th>Baseline Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre or Minimally Verbal ASD Preschoolers</td>
<td>+ SGD</td>
<td>Teach symbolic play, Increase social and object engagement,</td>
<td>+Dosage +DTT for imitation, joint attention, receptive language + SGD (PRN)</td>
<td>Teach joint attention, receptives, strategies for learning SGD</td>
</tr>
<tr>
<td>Newly diagnosed Toddlers with ASD</td>
<td>No</td>
<td>Increase social and object engagement</td>
<td>Increase access to partner input for complex language; change input over time +vocabulary diversity +increases noun+ verb combinations + increase diverse sentence structure +fine tune attention to environment/language</td>
<td>Teach joint attention, receptives Teach partners positive behavior support</td>
</tr>
<tr>
<td>Toddlers with Receptive/Expressive Delay (English)</td>
<td>No</td>
<td>No</td>
<td>Increase access to partner input for complex language; change input over time +vocabulary diversity +increase noun+ verb combinations + increase diverse sentence structure +fine tune attention to environment/language</td>
<td>Support partners to provide specific and progressive linguistic input Emphasize receptive and productive skills</td>
</tr>
<tr>
<td>Down syndrome</td>
<td>+ Sign or SGD</td>
<td>Teach play and attention regulation</td>
<td>+Dosage +DTT/Matrix training for transition to word combinations</td>
<td>Support partner comprehension, use of SGD,</td>
</tr>
<tr>
<td>Cleft Lip+/or Palate</td>
<td>+ Speech targets</td>
<td>No</td>
<td>+Recast for sound production at word level +Speech practice/priming with DTT</td>
<td>Increase rate of child talk and partner response</td>
</tr>
</tbody>
</table>

NDBI October 2018
Breakout Brainstorm

1. How would you go about determining what a young child brings to EMT?

2. Who would be critical collaborators in building an individualized system of instruction?

1. What skills do you need to implement an individualized system of instruction?
Adapting EMT for Young Children with ASD
A detailed example to use as a basis for adapting EMT to your population
Children with Autism

<table>
<thead>
<tr>
<th>Communication Challenges</th>
<th>Adaptations</th>
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<tbody>
<tr>
<td>Difficulty with joint engagement and nonverbal communication foundations</td>
<td>Model and teach joint engagement behavior</td>
</tr>
<tr>
<td>Limited play skills and brief duration of play</td>
<td>Model and teach play skills to support engagement, language teaching, cognitive development</td>
</tr>
<tr>
<td>Requesting rather than commenting (limited social interest)</td>
<td>Model commenting, limit requesting</td>
</tr>
<tr>
<td>Very low rate spoken language,</td>
<td>Increase social motivation</td>
</tr>
<tr>
<td>Interfering behavior</td>
<td>Add SGD, teach joint engagement, behaviors,</td>
</tr>
<tr>
<td></td>
<td>Teach to strengthen social motivation, differentially, support positive behavior</td>
</tr>
</tbody>
</table>
Jasper-EMT for Children with ASD

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<td>Difficulty with joint engagement</td>
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<tr>
<td>Few play skills and brief duration of play</td>
<td>Model and teach play skills</td>
</tr>
<tr>
<td>Requesting rather than commenting</td>
<td>Model commenting, limit requesting</td>
</tr>
<tr>
<td>Interfering behavior</td>
<td>Determine which behaviors are communicative; respond differentially</td>
</tr>
<tr>
<td>Very low rate spoken language</td>
<td>Add SGD</td>
</tr>
</tbody>
</table>
EMT Modifications For Children with ASD

- Support speech development
- Add AAC
- Teach partners AAC support

- • Teach imitation
- • Add discrete trials
- • Teach strategies
- • Increase dosage
- • Support generalization

- • Increase social motivation
- • Teach joint attention behaviors
- • Increase rate

- • Teach play skills
- • Increase person engagement
- • Teach coordinated joint attention

- • Teach joint attention behaviors
- • Increase rate

EMT for Children with Complex Communication Needs
Individualized Systems Of EMT for Young Children with ASD

Individualization

- Child social communication targets
- Child linguistic targets
- Child mode
- Direct teaching (DTT)
- Caregiver Training and Coaching
- Balance of Therapist Intervention/Caregiver-implemented intervention
- Progress monitoring and adaptations
- (Collaboration with other therapies and educational intervention)
Conclusions

• EMT is both a typical and unique NDBI
• EMT is an intervention for both children and their critical communication partners
• EMT is designed for adaptation to individuals
• EMT is evolving toward an individualized system of instruction
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Related References


Recent publications


For more information

- Website: [http://kidtalk.vkcsites.org/](http://kidtalk.vkcsites.org/)
  - Recent research
  - Information for parents and practitioners
  - This presentation and other related presentations
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