Disclosure Statement

I have the following relevant relationship in the services described and reviewed in this presentation:

PROMPT Institute
• Contract employee which entails conducting PROMPT courses and PROMPT Instructor responsibilities.

Learning Objectives

• Describe the PROMPT Conceptual Framework
• Understand Key Components of PROMPT Assessment
• Understand Key Components of PROMPT Treatment
• Review of current and future PROMPT research

Raise your hand if…

You have heard of PROMPT Therapy
You have seen PROMPT Therapy
You have taken PROMPT Intro
You have taken PROMPT Bridging

The PROMPT Institute
Mission Statement

The PROMPT Institute is dedicated to the investigation of tactual sensory systems and their critical role in the development/rehabilitation of speech, language, cognition and interaction. To increase our understanding of these dynamic systems, we:
• Provide workshops and education for speech-language pathologists, caregivers and the general public on PROMPT and speech production disorders.
• Develop, and participate in treatment and clinical research, involving dynamic multi-sensory systems, for children and adults with speech-production disorders.
• Develop special programs for all healthcare delivery environments.
• Provide scholarships for therapists in PROMPT-developing areas.
• Provide treatment grants for those unable to pay for PROMPT therapy.

What is PROMPT?

• P – Prompts for
• R – Restructuring
• O – Oral
• M – Muscular
• P – Phonetic
• T – Targets
PROMPT

A holistic, dynamic, sensory-motor, tactile kinesthetic system designed to help organize, plan and execute the phonetic/phonemic elements of speech production for the development or redevelopment of language within functional interactions.

PROMPT is used with Children with:

- Phonological delays
- Developmental delays
- Dysarthria
- Childhood Apraxia of Speech
- Motor Speech Disorders
- Hearing impairment
- Autism Spectrum Disorders
- Fluency disorders
- Difficulty acquiring foreign language sounds systems

PROMPT is...

<table>
<thead>
<tr>
<th>Philosophy</th>
<th>Approach</th>
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<tbody>
<tr>
<td>PROMPT</td>
<td>System</td>
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<tr>
<td>Technique</td>
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PROMPT Conceptual Framework

Cognitive Linguistic Domain

<table>
<thead>
<tr>
<th>Areas to observe</th>
<th>General Assessment Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception; sensation, discrimination, recognition</td>
<td>How does your client process information and interact with the environment to learn?</td>
</tr>
<tr>
<td>Concept Formation</td>
<td>How does the environment need to be structured for learning?</td>
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<tr>
<td></td>
<td>What modifications are necessary for the client to learn?</td>
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Physical Sensory Domain

<table>
<thead>
<tr>
<th>Areas to observe</th>
<th>General Assessment Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skeletal Structure</td>
<td>How does your client's skeletal structure and muscular development impact movement?</td>
</tr>
<tr>
<td>Sensation</td>
<td>What is the status of the neuromuscular system?</td>
</tr>
<tr>
<td>Neuromuscular Integrity</td>
<td>What factors impact global motor and speech motor control?</td>
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Social Emotional Domain

<table>
<thead>
<tr>
<th>Areas to observe</th>
<th>General Assessment Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal Interactions</td>
<td>How does your client express their needs and wants?</td>
</tr>
<tr>
<td>Trust</td>
<td>What communicative functions does your client exhibit?</td>
</tr>
<tr>
<td></td>
<td>How does your client use significant others to aid in the acquisition of knowledge</td>
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PROMPT Tenets

- Humans need to connect with other humans on all 3 levels
- Communication may be disrupted by a breakdown in any or all three domains
- In order to strengthen the weakest domain; all domains must be reintegrated

PROMPT Tenets

- Restructuring should alternate focus among all domains
- No communication intervention can produce permanent change without involving all domains
- The ultimate goal is to achieve a state of equilibrium across domains to the highest level attainable

PROMPT Assessment

- Caregiver Interview
- Global Domain Evaluation ~ Holistic
- System Analysis Observation (SAO)
- Motor Speech Hierarchy (MSH)
Ruby’s SAO

- Observations:
  - Low tone
  - Lack of Mandibular Control
  - Lack of Labial Facial Control
  - Lack of Lingual Control
  - Unable to sequence movements
Ruby’s Motor Speech Priorities

- Increase Mandibular Control
- Increase Labial Facial Control
- Increase ability to produce Anterior Lingual contractions

PROMPT as a System

Complete SAO → Transfer to MSH → 3 Motor Speech Priorities

PROMPT TREATMENT

- Work on Stages/Planes of Movement Rather than single Phonemes
- Work across Three Stages at Once with varying priorities
- Focus on All Domains
- Treatment is Always Functional
- Prompts Faded When Appropriate

PROMPT TREATMENT

- Functional Lexicon that Matches Specific Motor Level
- Structured activities spotlighting the targeted domain for the child to be available for learning
- Turn-Taking

PROMPT TREATMENT

- Emphasis on vowels and diphthongs
- “Speech through speech”, no oral-motor
- Close proximity to client and tactile cueing
- All treatment is functional and interactive

Choose a Functional Lexicon

- Based on Motor Speech Hierarchy
- Emphasis on the movement of vowels
- Create motor phoneme links that are appropriate for the client’s motor system
- Functional words that can be embedded into activities
USES of PROMPT

1. To Develop An Interactive Awareness/Focus for Oral Communication
2. To Develop Integrated Multi-sensory (Tactile-kinesthetic) Associative Mapping For Cognitive Or Linguistic Concepts
3. To Develop, Balance Or Restructure Speech Subsystems At The Motor-phoneme, Word Or Phrase Levels

Uses of PROMPT

1. To Develop An Interactive Awareness/Focus for Oral Communication
   - Develop attention and waiting
   - pre-linguistic or early linguistic stage
   - Emphasizes one or two motor-phonemes or actions, interaction and awareness to face, not really working on subsystem control at this level.
   - parameter prompts sometimes a surface prompt and/or a syllable prompt.
   - Associate a sound to an action.

Uses of PROMPT

2. To Develop Integrated Multi-sensory (Tactile-kinesthetic) Associative Mapping For Cognitive Or Linguistic Concepts
   - Associate tactual-auditory, sensory information to cognitive-linguistic making association between motor map and concept.
   - No expectation of production
   - Bring awareness to the concept but not the subsystem control.
   - If you have a cognitive-linguistic focus then mapping is helpful to develop concept about what’s in the world, receptive language.
   - To bring sensations in environment to level of cognition.

Uses of PROMPT

3. To Develop, Balance Or Restructure Speech Subsystems At The Motor-phoneme, Word Or Phrase Levels
   - Used for developing/integrating each subsystem into the dynamic, hierarchical whole.
   - Necessary to rebalance speech subsystems for dynamic control so they may be used flexibly with a minimal amount of effort during spontaneous, phrase production.

Uses of PROMPT

Motor Learning

Motor learning impacts on motor speech control

Motor skills are learned through a ‘motor response schema’
PROMPT TREATMENT

Sensory Input

Change Neural Plasticity

WARNING !!!

• The more domains affected, the more limited the resource pool

PHYSICAL-SENSORY DOMAIN

COGNITIVE-LINGUISTIC DOMAIN

SOCIAL-EMOTIONAL DOMAIN

RESOURCE POOL

Levels of PROMPTing

Surface

Complex

Syllable

Parameter

Social Pragmatic Theory to PROMPT

INTENTIONALITY

PRE-LINGUISTIC BEHAVIORS

PROMPT INTERVENTION

VARIED COMMUNICATIVE FUNCTIONS

TO BE ESTABLISHED FIRST!

PROMPT Treatment

Knowledge of everyday experiences provides the foundation for thinking, talking and acting on the environment.

Everyday routines/events provide a secure, predictable base of information allowing for advances in language development.

Perspective taking develops as the role of others is understood.

PROMPT Research

All Research Reviewed in this presentation can be found:

http://www.promptinstitute.com/?page=ResearchLibrary
Speech Intelligibility

- Speech Intelligibility Measures
  - Performance on single word testing is a poor indicator of speech intelligibility (SI)
  - Motor control (planning & sequencing) is more indicative
  - PROMPT focuses on the underlying motor control

Kinematic Study

- Movement changes in response to PROMPT Therapy
- Single-subject multiple baseline across participants: Children with CP
- Improvement in movement resulted in significantly improved speech perception

Cortical Thickness

- Cortical Thickness in Children Receiving Intensive Therapy for Apraxia of Speech
  - MRI results showed children with CAS had sig. thicker LSMG
  - After PROMPT Therapy, sig. thinning of Left Posterior Superior Temporal Gyrus (Wernicke’s Area)
  - 1st study to show experience related structural plasticity after therapy for speech sound disorders
  - Why Wernicke’s area? Possible role in Auditory-Motor phonemic representation

VOT and PROMPT

- Significant changes in VOT compared to controls.
- Normalized VOT after PROMPT Therapy which focused on Mandibular control
- Mandibular functioning impacts coordination between phonation and articulation

Current Research

- Randomized Controlled Trial
  - 44 participants
  - Randomly selected
  - Control group
  - Group receiving PROMPT
  - Does PROMPT group exhibit significant change vs. controls

PROMPT Levels of Training

- Certificatio n Project
- Bridging – Technique to Intervention
- Tape Practicum
- Intro to Technique
- Online Courses/ Mentoring
THANK YOU!

You are welcome to contact me:

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For additional information see:

www.promptinstitute.com