Saddling up for Episodic Care - Presentation Background

Amber Lowe, MOT, OTR/L, CBIS
Jen Schmit, PhD, DPT
Amy Wenz, OTD, OTR/L
Karen Harpster, PhD, OTR/L

Objectives

1. To understand outcomes, experience, and values associated with an episodic care model of therapy service delivery.
2. To explore components of the value of the episodic care model.
3. To present an evidence-based goal setting process.
4. To discuss potential barriers to implementation of this model of care and develop solutions to support transition to episodic care when appropriate.

The Climate: Policy

- The IOM chasm – an identified rift between the care we provide and corresponding health in the US
- Affordable Care Act – a dramatic change in healthcare delivery and reimbursement systems

A Challenge:

“In short, societal critics call us to a partnership that accepts constraint and makes prudent use of resources in the name of the common good of the human community. It is up to us to take society's concerns seriously under advisement.... The very core of being professional demands it, and it is key to survival in the new millennium.”

Ruth Purtilo, 2000 McMillan Lecture

What is episodic care?

A period of focused intervention targeting a patient’s emergent need, with a beginning and an end!
**What Do We Know?**

- Gordon – Intensity matters but it doesn’t all have to occur at once
- Kolobe: you gain what you train (Sakzewski et al., 2011), repetition must be accompanied by engagement (Kleim & Jones, 2010)
- Learning principles: early variable work, error, salience, intensive (Prosser, 2012)
- Family forum word to remember “childhood”.
- More is generally better, but we have resource limitations (payors, patient/family tolerance, etc.)

**Neuroplasticity**

- The threshold dose: structural changes need to accompany functional changes for sustainability (Dobkin, 2005)
- Intensive task repetition as a critical ingredient in the cocktail (e.g. Schertz, 2008)

**APTA/SOP Research Summit: Dosing (Kolobe et al., 2014)**

- “Dosing decisions are complex”
- Dosing is an intervention parameter that is critical for treatment efficacy.
- Interventions must demonstrate efficacy before dosing can be examined
- Find a dose that produces meaningful, sustainable change at many levels of the ICF (e.g., the Gannotti et al, 2014)

**What We Know About CP**

- General dosing guidelines exist for some interventions (e.g., stretching, strengthening, and CIMT)
- Task specific practice is critical
- Individuals with CP may require longer duration and higher frequency
- Dosing is a “national priority” to the Institute of Medicine, specifically in the area of CP

**CCHMC Motivation**

Sample from proposed framework: Ten Simple Rules

<table>
<thead>
<tr>
<th>Old Way</th>
<th>New Way</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providers work in isolation to meet the</td>
<td>Coordination of care among disciplines to</td>
</tr>
<tr>
<td>discipline specific needs for the client</td>
<td>treat a common goal is a priority</td>
</tr>
<tr>
<td>Professionals control care</td>
<td>The client is the source of control</td>
</tr>
<tr>
<td>Decision making is based on therapist</td>
<td>Decision making is based on evidence</td>
</tr>
<tr>
<td>background (i.e., training and experience)</td>
<td></td>
</tr>
</tbody>
</table>
OTPT Steering Committee Motivation:

- Therapeutic interventions today focus more on functional performance (e.g., Law, 2011)
- Intensive application that lacks a task-oriented approach should be reconsidered (e.g., Schertz, 2008)

Our Plan

<table>
<thead>
<tr>
<th>Historical</th>
<th>Vision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ongoing therapy model with undefined duration</td>
<td>Focused episode of care</td>
</tr>
<tr>
<td>Dosing based on therapist/client availability and/or insurance visits</td>
<td>Dosing based on evidence and individual client needs</td>
</tr>
<tr>
<td>Limited program options available</td>
<td>Evidence based programs developed to address a greater variety of client’s needs; Program assignment is based on client goals, motivation and therapy history</td>
</tr>
<tr>
<td>Intervention addresses impairment level goals</td>
<td>Intervention addresses functional goals</td>
</tr>
<tr>
<td>Practice is repetitive, non-task specific</td>
<td>Practice is task specific</td>
</tr>
</tbody>
</table>

On the Shoulders of Giants

Preparation Summer 2013

<table>
<thead>
<tr>
<th>Literature Review</th>
<th>Establish Programs</th>
<th>Identify Teams</th>
<th>Schedule Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>January-February</td>
<td>March</td>
<td>March-April</td>
<td>May</td>
</tr>
</tbody>
</table>

Summer 2014

<table>
<thead>
<tr>
<th>Goal ID visits/staff education</th>
<th>T&amp;M, teams assigned, staff education</th>
<th>Treatment, ongoing data collection</th>
<th>T&amp;M post visits, data review, PDSA review</th>
</tr>
</thead>
<tbody>
<tr>
<td>March</td>
<td>April-May</td>
<td>Jun-August</td>
<td>Aug-Sept</td>
</tr>
</tbody>
</table>

Episodic Programs

Summers of 2013 and 2014

- CIMT/Bimanual (Guideline)
- Upper Extremity Neuromuscular Task Training
- Lower Extremity Neuromuscular Task Training (Guideline)
- Functional Strength and Endurance
- Contextual Training / Performance Skill Enhancement

***Program names have evolved***
Evaluation

- All episodes begin with a goal identification visit
  - COPM and GAS
- The goal ID visit assists in identifying which program is most appropriate
- Factors that influence decision include:
  - Specific goals: Musculoskeletal function
  - Activity analysis: Therapeutic history
  - Ready/Engaged: Family preference
  - Cognition: Behavior
- The goal ID visit is followed by a test and measures visit
  - Program specific tests and measures are utilized

CIMT/Bimanual

- Based on three evidence based protocols for facilitated use of involved upper extremity
- Incorporates both unilateral and bimanual training
  - Group based
  - Individual based

CIMT/Bimanual

<table>
<thead>
<tr>
<th>Protocol</th>
<th>Model of Therapy</th>
<th>Duration of Intervention</th>
<th>Duration of CIMT/BIT</th>
<th>Dosage of treatment with therapist</th>
<th>Structured Practice with Caregiver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protocol 1</td>
<td>Intensive</td>
<td>3 weeks</td>
<td>2 weeks CIMT</td>
<td>1-2 hours per day for at least 3 days per week</td>
<td>3 hours per day when not with therapist</td>
</tr>
<tr>
<td>Protocol 2</td>
<td>Intensive</td>
<td>6 weeks</td>
<td>4 weeks CIMT</td>
<td>1-2 hours per day; 3 days per week</td>
<td>2-4.5 hours per week</td>
</tr>
<tr>
<td>Protocol 3</td>
<td>Frequent</td>
<td>8 weeks</td>
<td>5 weeks CIMT</td>
<td>1-2 hours per day for one day per week</td>
<td>4-6 hours per week</td>
</tr>
</tbody>
</table>

Outcome measures

- Participation: COPM and GAS
- Activity: CHEQ or PMAL, Melbourne
- Task performance: AHA, ABILHAND-Kids

UE/LE Neuromuscular Task Training

- Intensive neuromuscular re-education program
- Combines clinical technologies and functional training
- Strong focus on motor learning principles
- Two Options:
  - Three times a week for 5 weeks
  - Five times a week for 3 weeks

Outcome measures

- Participation: COPM and GAS
- Activity: CHEQ or PMAL, Melbourne
- Task performance: AHA or SHUEE
**Locomotor Program**

- **Outcomes**:  
  - Participation: COPM and GAS  
  - Activity: 6 Minute Walk Test, Timed Up and Go  
  - Function: Pediatric Balance Score  
  - Task Performance: Temporal-spatial gait measures

**Functional Strength and Endurance**

- **Individual or group programming**  
- **Focus on strength, balance, and aerobic capacity to facilitate participation in functional activity**

**Functional Strength and Endurance**

- **Three times per week for 6 weeks**  
- **Outcomes**:  
  - Participation: COPM and GAS  
  - Activity: 6 Minute Walk Test with Cosmed  
  - Performance: BOT Strength and Agility

**Contextual/Performance Skill Enhancement**

- **Dose**  
  - Week 1: 3-5 days with therapist  
  - Week 2: Practice at home  
  - Week 3: 3-5 days with therapist  
  - Week 4: Practice at home  
- **Outcomes**  
  - Participation: COPM and GAS

- **Contextual**:  
  - Focuses on adaptation of tasks or environment for improved function  
- **Performance skill enhancement**:  
  - Focuses on maximizing individual's skills for improved function through high frequency task specific practice