Early Stuttering: The Timing for Intervention
Rosalee C. Shenker, Marie Bourgeault Coté, Gisella Santayana, Alina Boghen
Montreal Fluency Centre

Early Intervention

- Desirable
- No agreement on timing
- Many preschoolers recover without treatment

Stuttering

- 4-8.5% incidence in preschool
- 1% prevalence
Studies of Incidence

- UK – 1000 children
  - Stuttering onset by age 5 = 3.5%
  - 42% recovered naturally by 6 years

Studies of Incidence

- Denmark – 1042 children up to 3 years
  - Incidence of stuttering by age 3 – 5%
  - 71% recovered by age 5

Studies of Incidence

- Australia – 1619 children
  - 8.5% incidence by age 3
  - Median age of onset 29.9 months
  - Stuttering confirmed by SLP visit
Stuttering

- Onset typically 2-4 years
- Coincides with speech/language development
- Need to provide more service to this group
- Overburdened with long wait lists

Leaving stuttering untreated

- Bullying & Teasing
- Speech-related social anxiety
- Social Phobia
- Failure to obtain occupational potential
- Severely impaired communication

How to choose who is at highest risk?

- What factors predict recovery/persistence?
- Which place a child at highest risk for chronic stuttering?
- How can we identify these children?
What is known about predictors

- Boys more likely to stutter than girls
- Higher incidence in twins
- Family history of persistent stuttering
- Onset after 3 years
- Constant level of SLD

May be risk factors

- Maternal level of education
- Vocabulary and communication skills
- Phonological skills during the first year after onset
- Rapid onset/episodic nature
- Prominence of repeated words at onset

Other risk factors?

- Temperament characteristics, e.g., 'shyness', 'sensitivity' have not been confirmed as predictors of risk
- No studies of language/temperament before onset
- No clear link between cultural/multilingual factors
later onset stuttering

- What characteristics predict risk of persistency
- Do stronger predictors emerge with onset > 3 years
- What symptom clusters persist/resolve

Purpose of Presentation

- Guidelines for the timing of intervention in preschool years
- Better understanding of dynamics of early stuttering
- Prognostic & Treatment recommendations

Why do we need protocols to inform intervention?

- Stuttering most responsive in preschool years
- Long waits for assessment/treatment
- Missed opportunity
- Intervention should be based on evidence for risk
- Need models that identify those children
- Monitoring/treatment can be targeted
- Evidence-based model is cost effective/efficient
Montreal Fluency Centre Pilot Study

- What is the rate of natural recovery without treatment in a clinical setting?
- Does exposure to more than one language affect natural recovery?

Completed in 2009

- Parents completed comprehensive case history
- Conversational samples from home/clinic
- Screening for other speech/language concerns
- %SS measured

Treatment

- Risk for persistent stuttering was high
- Child stuttering > 6 months
- Child >4 years old
- Evidence of distress (parent or child)
- Other speech and language issues
- Stuttering getting more severe
Monitoring

- Risk of stuttering low
- Child stuttering < 6 months
- Child < 4 years old
- No expressed concerns
- Stuttering appears to be decreasing in severity

Monitoring Program

- Parent learned to monitor severity of stuttering
- 10 point severity rating scale
- Daily global score
- Encouraged to keep notes
- Provided ratings to MFC by phone/email

Monitoring Program

- When treatment is indicated placed on priority wait list
- Treatment began within 1 month
- No other treatment provided during monitoring program
Parents assured:

- Stuttering is not unusual in young children
- Stuttering onset is often associated with rapid growth in language development
- Children who start to stutter do not appear to be more shy or withdrawn
- No strong evidence for social/environmental factors related to stuttering onset

Children who stutter

- Repeat words or syllables over and over
- May prolong sounds
- May have speech ‘stoppages or blocks’ where no sound comes out
- Stuttering can start suddenly or gradually

Results

- 30 children
- 22 boys; 8 girls
- 28-66 months (median 41 months)
- 26/30 exposed to 2+ languages
Next Steps?

- Increase # predictors monitored
- Increase # children
- Long term follow up to monitor relapse
- Partnerships in the community
Conclusion

- Clinical model for determining timing of intervention
- Simple/cost effective
- Reduces waiting time for children at high risk
- Eliminates needless treatment for those who will recover
- Evidence-based clinical practice in the "real world"
# STUTTERING MONITORING PROGRAM
## EVALUATION OF EARLY STUTTERING – CLINICAL RECORD

<table>
<thead>
<tr>
<th>Name:</th>
<th>Date of Birth:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Assessment:</td>
<td>Severity Rating at Assessment:</td>
</tr>
</tbody>
</table>

Previous Treatment (type, duration, outcome):

**Recommendation:**

<table>
<thead>
<tr>
<th>Monitoring (Y / N)</th>
<th>Treatment (Y / N)</th>
</tr>
</thead>
</table>

Follow-up Dates:

1.  
2.  
3.  
4.  

Clinician:

---

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>#1 Yes</th>
<th>No</th>
<th>#2 Yes</th>
<th>No</th>
<th>#3 Yes</th>
<th>No</th>
<th>#4 Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 4years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 4years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onset &lt;6months</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onset &gt;6months</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onset sudden</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stuttering Episodic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family history of persistent stuttering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family history of recovered stuttering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SLD constant since onset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal level of education (HS or &gt;)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above average vocabulary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above average language skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phonological skills in normal range</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prolongation of sounds noted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blockages noted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prominence of repeated words at onset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is able to re-tell a story (4y+)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is able to generate a story (4y+)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensitive temperament</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 language spoken</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2+ languages spoken</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home language spoken (see comments)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child is distressed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent is distressed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medications taken (see comments)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (see comment)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
STUTTERING MONITORING PROGRAM
EVALUATION OF EARLY STUTTERING – CLINICAL RECORD

COMMENTS:

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________

________________________________________________________________________________________
Monitoring Program
Montreal Fluency Centre
4626 St. Catherine Street West – Montreal, Quebec H3Z 1S3

The findings of your recent assessment for Early Stuttering indicate that your child was found to be at a low risk for the development of persistent stuttering at the moment. It is therefore recommended that your child be placed in a monitoring program to follow the course of the stuttering. This will require the following:

1. Complete the severity rating form daily.

2. On this form 1 = no stuttering; 2 = very mild stuttering and 10 = extremely severe stuttering. The form and instructions for using it are attached.

3. You are encouraged to write any notes that you may want to share with the clinic/clinician on the back of the form.

4. You will be contacted by the Centre every 4 weeks for a follow up. Send the severity ratings every 4 weeks to __________________________ at __________________________.

5. Alternatively, you can phone or fax the ratings to 514 489-4320, ext. ________.

6. If you have any questions or concerns about your child’s stuttering that you would like to speak with a clinician about before your follow up, phone the Centre at 514 489-4320, ext. 227 and a therapist will phone you back as soon as possible.

7. If your child’s risk should increase, treatment will be recommended and you will not wait longer than one month to begin therapy.
STUTTERING MONITORING PROGRAM
PARENT OUTCOME QUESTIONNAIRE

Child’s Name ___________________________________________  Sex ____
Date ____________________  Follow-Up # _____  Age of Child___

1. During the last week, what has been your child’s typical stuttering severity on any day?

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

1 = no stuttering  
Extremely severe stuttering = 10

2. During the last week, what has been your child’s most severe stuttering on any day?

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

1 = no stuttering  
Extremely severe stuttering = 10

3. How satisfied are you with your child’s present level of fluency?

<p>| | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

1 = extremely satisfied  
Extremely dissatisfied = 10

4. If dissatisfied, what are your concerns?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

5. Do you have any comments or questions that you would like to add?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

6. Would you like to speak with a Speech-Language Pathologist at this time?  Y  N

7. Your next scheduled follow-up will be __________________________

NB – Some information from the University of Newcastle, Australia – NHMRC Program Grant Research, 2008.